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ORIGINAL ARTICLES.

SOME THERAPEUTIC PRINCIPLES, NOW AND PREVIOUSLY HELD BY THE NEW SCHOOL OF MEDICINE, WHICH ARE UNSOUND.*

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THE ancients chose a serpent, for their symbol of rejuvenescence, because, yearly, it changed its skin. And while the serpent has characterized medicine, from the earliest times to the present, medicine has not, until recent years, characterized the serpent in rejuvenescence. But, to-day, scientific research and experiment are carried on with such nicety and so persistently, that each day brings forth something new; and, if the new product is adequate to its purpose, it springs into activity, and is accepted; while that which can not compete, or, is found wanting, is rejected; and so the present replaces the past; and we press forward with the one, only, and universal cry—excelsior!

Life and growth are inseparable, so are decay and repair in a healthy organism. An organism can not grow, nor survive, unless it throws off and takes on. It must excrete as well as secrete. The non-nutritious material must be replaced by that which is nutritious. And the degree of life is as well measured, by that which is discarded, as by that which is retained, or added.

An organism, whether natural or artificial, must first unload before it can load. The half of every life, whether considered mentally or physically; and a portion of the time of every society, whether secular or religious, should be spent in unloading—in getting rid of that which is effete, dead and false; how else can there be any real rejuvenescence; and the renewing of vigor and life—fresh life, with its activity, growth and beauty.

We forget that there is as much physiology in excretion as in secretion; and, if we can not get rid of dead material in any other way, let us adopt nature's process, and slough it off; or resort to art, and cut it off.

The most of that, which comes to us as pure gold, is only alloy. All that glitters is not gold; and we must be constantly refining to obtain the precious metal. There is so much to unlearn as well as learn. The mental life of man is one long

revision. You see it in our books, in theory and practice, in theology, in mechanics, in all the arts and sciences, and in all the works and inventions of men in a progressive age.

Truth, like wheat, first comes to us in chaff. We must winnow the wheat and winnow the truth; and man must sweat both for bread and knowledge.

In the light of to-day, it is not wise for any man to pin himself to a theory, doctrine, or principle and say—here I rest.

If philosophy, science and history teach us anything, it is this, that the accepted teachings and theories of one age, are often rejected by the next age. Such radical changes become imperative in the light of subsequent events.

Fifty years ago philosophers believed that nature abhorred a vacuum, but to-day no scholar believes that.

One hundred years ago a mariner dare not cross the equator, for fear of death; to-day seamen feel as safe under the equator as anywhere else on the mighty deep.

The ancients believed the arteries were air-tubes, to-day we know that they are the channels through which the blood circulates.

Spontaneous generation has been abandoned because of the germ theory; and fermentation and decomposition have other explanations from that of twenty-five years ago.

When the Persians invaded Egypt, under Cambyses, the Egyptian forces surrendered Pelusium without a struggle. They dare not harm the dogs and cats—animals, sacred to the Egyptians, which Cambyses had placed at the head of his advancing army. In war to-day, that sort of strategic movement would not work even in darkest Africa.

In the days of Aristotle scholars reasoned by deduction; but, since Bacon's time, the mind of the world has been reversed; and reasoning now is mostly inductive.

In the sixteenth century, during a period of sixty years, the Calvinistic influence at Geneva burned at the stake 150 persons for witch-craft. To-day the world calls such perverted religious faith murder!

The humoral theory of disease, which was conceived by Hippocrates, ruled the medical world for centuries; and it did a vast amount of harm; but, to-day, we look upon it as a fossil—as an extinct monstrosity. A few years ago all the medical schools throughout the land taught, that removal

* Read before the Semi-Annual Meeting of the State Hom. Med. Society, Brooklyn, October 1, 1890.

of both ovaries would be followed by permanent cessation of the menses and sterility; but it has been demonstrated that, under certain conditions, this is not always true.*

There is not a physician here to-day who was not taught that air in the veins was fatal. But recent experiments have established the fact that this is not true of dogs.†

Such is history; and such are the incessant and continuous changes in faith and doctrine. What does it all demonstrate? That "man changes his errors often, but error of some sort is always with him."

This is a constitutional and unavoidable mental predicament, from which man can never escape. The only thing for man to do is to acknowledge the dilemma, and adjust himself as best he can to the changes. He must give up the idea of infallibility, and face the inevitable liability to error; and coolly address himself to each and every question by asking—is it true?

Faith must yield to fact. Man in imagination and theory is boundless; but fact circumscribes him. Imagination is misleading; and theory does not become truth without proof.

All differences between theologians, philosophers, and scientists is not concerning truth, but concerning theory. Truth means unity. Is it true, is it true, is it true? is all the question we need ask concerning anything.

On the way to truth there is carnage, mutiny, discord; but once there, all is joy, peace, harmony, heaven.

Acting in the light of a century of homœopathy we may safely correct, to-day, the errors of Hahnemann. This has never been done officially to my knowledge.

Hahnemann was not an infallible author. Let us not make a Galen of him; if so, there will be need of a Paracelsus also.

I presume there are a few physicians in our school at the present time, who regard Hahnemann and his works as sacred; and they do not wish any change. But sacred things are revised. We have a new version of the Holy Scriptures; and, recently, it has become the will of the Presbyterian Church that their Confession of Faith be altered, and made to conform to the word of God; and our *Materia Medica*, a sacred book, is to pass through critical hands and be corrected.

We should glory in this innovation of progress, which has simultaneously come to these two, staid, old handmaids—medicine and religion. And it is a time for special rejoicing, when we behold the physiological process of excretion, as well as secretion, applied to homœopathy. And now that we have begun this renewing and life-giving process, let us officially cast off some of our false

therapeutic principles. Let us revise our faith as well as our work. We cling to the soul and spirit of homœopathy as to an eternal truth; but we may change some of its old garments, and keep up with the times.

The first rag to cast off of homœopathy is potentiation of drugs by trituration and succussion.

Hahnemann was a careful observer. He noted the fact that certain drugs, for example lycopodium, which in the crude form, or lowest triturations, was inert, became active, or potent, at the sixth or higher triturations. This latent power, or influence, which was manifested by lycopodium at, or above, the sixth trituration, Hahnemann attributed to the triturating process; but subsequent light has revealed to us, that successive trituration does not add any power to lycopodium, which it did not originally possess. On the contrary, all that trituration does for lycopodium, is to thoroughly break up the microscopical and flinty sporules of the plant, in which the active principles reside.* And, according to the old method of trituration, this was more completely accomplished at the sixth trituration than at the first; and so the sixth was more potent than the first; or, to correct the phraseology, the sixth was not more potent than the first; but it was more suitable and better adapted as means to an end. To make a rough comparison, it is like removing the shell of a cocoon in order to utilize its meat. The cocoon is just as potent before its shell is off, but not as useful.

It is not necessary for me to enlarge on this point. If other drugs are rendered more efficacious by successive trituration, the reasons for it are generally understood, and are known to be other and different reasons than those which Hahnemann assigned. The same may be said of succussion of drugs.

The second rag to cast off of homœopathy is high potencies.

I know this is a tender question; and it has been the bone of contention among homœopathic physicians for many years; and there are those in our ranks, to-day, who would fight, bleed, and die for high potencies; but, nevertheless, that rag must go.

Literally and correctly speaking there is no such thing as a high potency. A drug's power is not increased by dilution; and it is a delusion and a snare to believe that a drug will take on a high degree of energy by infinitesimal dilution. This blind and erroneous faith, which was placed in high potencies by our predecessors, has corrupted our *materia medica*; and it is one of the chief causes which, to-day, makes a revision of that work necessary. But our revisers are re-

* "Menstruation and the Removal of Both Ovaries," *Annals of Gynecology and Pædiatry*, April, 1890.

† See *NEW YORK MEDICAL TIMES*, May, 1890, p. 46.

* *THE NEW YORK MEDICAL TIMES*, April, 1890, p. 31. Also, Hughes' *Pharmacodynamics*, 4th ed., p. 617.

peating the blunders of the past. They accept, with as much confidence and authority, a proving from the 30th or 200th dilution, as from the tincture, or first dilutions.*

Who has any faith in provings made with the so-called high potencies, and which were and still are incorporated in our materia medica, since it has been clearly demonstrated that there is no drug material left beyond the twelfth or fifteenth centesimal dilution, which can be detected by science or sense? When we go beyond the tangible, we must rest on faith; and "faith has no proofs, but only itself to offer."

The third rag, which homeopathy should be relieved of, is Hahnemann's "Psoric Theory."

This theory is taught in the "Organon" as much as anything else. It was an ingenious theory; and it made a profound impression on Hahnemann's disciples. But, viewed in the light of to-day, the *consensus* of opinion is that, while it contains some useful knowledge, it is *in toto* unsound. Hahnemann, you remember, mentions the itch as one of the characteristics of psora.

The germ theory came after the psoric theory; and the itch insect was not known to Hahnemann. To my mind what Hahnemann called psora we, to-day, would call syphilis; but Hahnemann makes a distinction between psora, syphilis and sycosis.

Fellows of this society, are you ready to officially and publicly denounce these three unsound principles of Hahnemann? You have long since done so individually; but that is not enough. We should do so as a society, and unitedly set ourselves right before the world.

The following resolutions offered at the conclusion of my paper were tabled, the society thereby putting itself on record as not ready to denounce these untenable theories of Hahnemann:

Resolved, That in the opinion of this society the theory of potentiation of drugs, as taught by Hahnemann in the "Organon" and in his other writings, that is, the doctrine that the more drugs are attenuated by successive trituration, or the more they are diluted and succussed, the more their power and effectiveness is increased, is hereby declared unsound and unreasonable in principle, except the fact that division of drug matter is accomplished.

Resolved, That all symptoms attributed to provings with high potencies are of doubtful reliability, and therefore they are not trustworthy guides in practice.

Resolved, That, in the opinion of this society, the theory of the psoric origin of chronic diseases, as set forth by Hahnemann in the "Organon" and in his other writings, is erroneous; and,

therefore, as a basis for treatment, it is misleading.

Resolved, That, in order to prepare for intelligent action on the foregoing resolutions at the next annual meeting of this society, the bureau of Materia Medica is hereby authorized to compile and issue an abstract of its report for distribution to the members of this society.

THE COURSE OF RESPIRATION IN HEALTH AND DISEASE.*

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IN THE brief chapters on Palpation and on Inspection in the treatise on the "Diseases of the Lungs and Heart," by Lænnec, there is an estimation of the value of these methods of physical examination to which the physician of the present day would certainly not agree.

It is there said, with reference to palpation: "From the foregoing it is to be taken that the laying on of the hand seldom yields signs of value in diseases of the pleura and of the lung, and indeed in those cases where such signs are present they are somewhat superfluous, for the stethoscope would yield at the same time surer and more constant ones," and respecting inspection: "From the grounds mentioned, it is easy to perceive that the inspection of the motions of the chest during respiration is of very little use," and again, thereupon, "It becomes, moreover, upon the application of percussion and mediate auscultation entirely superfluous." And yet from the rarity of a description† of the course of the pulmonary respirations in text-books on physical diagnosis, as well as from the frequent neglect of inspection and palpation in the examination of the chest in practice, I believe this opinion of Lænnec to still exert its influence.

With this conviction, I am, at the present moment, when we find ourselves in possession of an accurate means of measurement and registration of the respiration, which furnishes us a test and basis of comparison for the results of ordinary observation of the movements of the chest wall, led to fulfill the invitation to address you, by speaking of the course of respiration in health and disease.

When in a general sense the term respiration be used, the appropriation of oxygen and the disappropriation of carbonic acid by the organism immediately suggests itself as a definition, and evidently suffices therefor; but, in speaking of the individual processes concerned, each of which, in practice, is also denominated respiration, a specification becomes necessary; for of these there are:

* An address delivered before the N. Y. County Homœopathic Medical Society, September 11, 1890.

† See Guttman's Handbook of Physical Diagnosis, art. Stethography.

* The North American Journal of Homœopathy, April, 1889, p. 267. Same journal—September, 1889, p. 625.

I. The muscular effort, by which the chest wall is moved in respiration.

II. The movement of air to and from the alveoli.

III. The interchange of oxygen and carbonic acid within the pulmonary parenchyma.

IV. The assimilation of oxygen and the dissimilation of carbonic acid by the tissues.

In proceeding to treat of the course of respiration, moreover, the same becomes likewise requisite, in that no one of these processes is necessarily parallel in course with the others, whether in health or in disease. In dyspnoea, for instance, the muscular effort is evidently out of proportion to the effect in supplying the alveoli with air; for a proportionally larger amount of force must become expended in overcoming the friction of the passage of air by reason of the greatly increased rapidity of the current in the bronchioles, or above them, as the case may be. Again, that the amount of arterialization of the blood does not necessarily proceed *pari passu* with the supply of air to the lung is evident in the case of a hindrance to the circulation, as from embolism of the pulmonary artery, from non-compensated mitral regurgitation, etc., wherein we have dyspnoea and increased supply of air to the lung with a diminished hematosis. Lastly, that the assimilation of oxygen and dissimilation of carbonic acid do not always proceed at the same pace, and can not, therefore, rise and fall with the gaseous interchange in the lungs, follows from the fact that oxygen is stored up by the tissues during periods of rest, to be used, if necessary, with great rapidity at the beginning of action.

Concerning the respiration of the tissues and the variations of its course in accordance with the normal variations in tissue metamorphosis in rest and activity, we still possess but limited information. We do not yet know under what precise conditions of the finer blood vessels and lymphatics the supply of oxygen to the tissues is increased and diminished, and we are unable to measure that supply. The course of the respiration in the tissues remains therefore a subject of purely scientific interest.

The conditions of the gaseous interchange in the lungs are better known than those of the gaseous interchange in the tissues, but, owing to the facts, that the amount of oxygen in the blood of the pulmonary artery and the amount and constitution of the hæmoglobin compounds therein may vary, as well also as the amount of carbonic acid to be gotten rid of, which of itself has an effect on the rapidity of absorption of oxygen, and furthermore the rate of delivery of the blood to the pulmonary capillaries, whilst, on the other hand, other supposed factors, such as, for instance, the shock to the contents of the arteries by the sudden extrusion of blood from the heart are yet in question, this part of respiration still remains within the pale of scientific investigation.

In respect of the determination of the flow of air to and from the lungs, we are, on the other hand, at the present time, in an advanced and satisfactory position. A method devised by Gad gives us the means, not only of determining the actual amount of air respired *in toto* or with each breath, as indeed a delicate spirometer would also do, but likewise of registering the course of each inhalation and exhalation in the animal or in man, and within an inconsiderable chance of error.

This method consists in the application of an instrument for the purpose, named an Aeroplethysmograph or volume-writer, consisting of an exceedingly light inverted box or cover of mica hinged at one end and held in balance by a counterweight. The free edges of this box play in a pneumatic trough, through the middle of which an upright tube makes communication between the air within the box and the interior of a large stout air-reservoir, which is connected in turn with the trachea or nares of the subject of experiment. The breathing of the latter causes the free end of the mica box to rise and fall and to write its motions upon a regularly passing surface of smoked paper by means of a light straw style cemented to the mica.

The excursions vertically of this style, within the moderate angle of its motion, are for the introduction of like quantities of air into the reservoir, at different points of elevation of the free end of the mica box, within an inconsiderable fraction the same, owing to the slight difference in the increments of the sines and angles of the first third of the quadrant. When the progression of the writing-paper is such that the height of the tracing equals the breadth of space occupied by a single respiration, the tracing yielded by an healthy animal or person in a state of ordinary quietude, will be of the character delineated in the accompanying figure, in which the upstrokes denote inhalation and the downstrokes exhalation:



It is here to be seen, that while inspiration goes immediately over into expiration, there is, at the end of the latter a relative, and generally also an absolute, pause during which no movement of air and therefore no effective motion of the chest wall takes place.

Upon simple but close inspection of the surface of the thorax this pause at the end of expiration is to be plainly perceived; but it is, as previously intimated, seldom mentioned in treating of the physical examination of the chest.

When from any cause the respiration becomes more frequent, this pause as a rule disappears and the inhalation and exhalation consume equal lengths of time.

Simple dyspnoea of moderate degree, such as

that produced by exertion, by fever, or by vitiation of the air breathed, will show itself in the tracing by increased height as well as increased frequency of the individual tracings.

If in the connection between the before-mentioned air-reservoir and the individual, a valve be interposed such that the inflow of air into the lungs will be hindered and the outflow be unaffected, the tracing will show a prolonged inspiration and a shortened expiration in comparison with the normal respiration before the interposition of the valve.

There will be an inspiratory dyspnoea, such as we may observe in *oedema glottidis*, in paralysis of the posterior crico-arytenoid muscle, in spasm of the glottis, in cases of valvular-acting tumors of the upper portion of the larynx and in paralysis of either the diaphragm or of the other inspiratory muscles.

Upon reversing the valve the effect on the tracing will be reversed, and we obtain an expiratory dyspnoea such as may be observed in cases of emphysema or of movable valvular-acting tumors below the glottis.

A mixed but predominantly expiratory dyspnoea is to be observed in spasmodic asthma and advanced emphysema.

When with unobstructed respiratory passages, the pneumogastric nerves be cut, a pause will appear at the end of inspiration, whilst the level of the tracing as a whole, will rise, showing that the breathing continues with a greater mean distension of chest than before. If the animal be fresh and healthy, the normal pause at the end of expiration will disappear, if it be ill or exhausted the pause may remain; but in any event, the new pause at the end of inspiration always makes its appearance. In this sign we have a means of determining whether the pulmonary vagus be paralyzed or paretic, wherever obstruction of the respiratory passages is absent.

The effect of sleep upon the tracing is to greatly diminish its height and to prolong the individual respirations. Coma often increases the depth whilst diminishing the frequency of the respirations. Painful respiration, on the other hand, is usually shallow and frequent. The same is true of the breathing in bronchitis, moderate emphysema, pneumonia and pulmonary oedema, and also, unless the attack be unusually severe, in spasmodic asthma. In phthisis the respiration is shallow, whilst the frequency depends upon the presence of fever and of pain, and upon the extent of the solidification on the one hand, and on the general weakness and diminished call for oxygen by the organism on the other. In tetanus and convulsions the respiration is very shallow, irregular and spasmodic and generally increased in frequency because of the shallowness.

The dyspnoea accompanying heart affections, that impair the circulation and, therefore, cause a

diminution of the amount of blood furnished to the lungs for arterialization within a given time, occasions an increased frequency of respiration.

Besides the air-flow to and from the lungs, which we are able, as above detailed, to accurately measure and continuously register by means of Gad's aëroplethysmograph, but which clinically we may sufficiently estimate by means of inspection and palpation of the chest walls during their respiratory movement, there remains to be considered the course of the respiratory muscular effort under various conditions of the organism.

For the purposes of experimental physiology, a method has been devised by Head, which enables the contractions of the diaphragm to be registered by a portion of the muscle itself, isolated at one end from the remainder, and by this means he has directly confirmed the conclusion of Gad from his aëroplethysmographic researches, that the muscles of inspiration are in a constant state of tonic contraction, by which the chest is kept in a state of distension at all times during ordinary breathing.

Clinically, the *tout ensemble* presented by the bared trunk is sufficient to convey a just idea: I. Of the amount of respiratory muscular effort and its proportion, normal or abnormal, to the respiratory effect produced; II. Of the peculiarities of that effort; III. Whether it be normally or abnormally distributed amongst the muscles of respiration, and IV. Whether it follow in a normally regular rhythm.

In matter of fact, we may by inspection of the neck, chest and abdomen, decide whether there be dyspnoea or not, and whether this dyspnoea be probably due to some general or nervous cause, as fever or exertion, or to obstructed respiration as in stenosis of the air-passages or solidification of the pulmonary parenchyma; we may see whether the respiratory effort be normally costo-abdominal or predominantly or exclusively costal, or abdominal, or indeed parti-costal and abdominal, and finally, we may perceive whether in the absence of dyspnoea it be normally regular and frequent.

A costal respiration, it need scarcely be said, is to be met with in cases of large effusions or tumors in the abdomen, in pregnancy and in meteorism. More important for purposes of diagnosis is its occurrence in pleurisy and peritonitis, subdiaphragmatic or general, as well as in other painful affections of the abdominal organs, lastly in cases of paralysis of the diaphragm, from disease or injury of the medulla oblongata, from neuritis of the phrenic, or from hysteria. In complete paralysis, and especially in the last-named affection, the epigastrium may sink in at each inspiration instead of projecting, as normally.

A parti-costal respiration is most frequently to be met with in phthisis, but is also set up in

pleurisy and other locally painful affections of the thorax in order to lessen the local motion.

A predominantly abdominal inspiration is to be observed in emphysema, and in other affections producing an immovable thorax wall, such as scleroderma of the chest surface and bulbar paralysis.

An infrequent respiration in the absence of great weakness or approaching death, or of advanced emphysema or other cause of dyspnea, is diagnostic of some cerebral or other central trouble. Such respiration is at times succeeded by the Cheyne-Stokes breathing, which may consist, between the characteristic pauses, each of some seconds to a minute's duration, either of several deep respirations at intervals or of the usually described, so-called typical form, composed of a number of respirations, perhaps six to ten, increasing from and—after a deep inspiration at the acme,—again diminishing to a scarcely perceptible effort. During the middle of this course the patient who is usually apathetic or comatose may regain consciousness. Outside of brain affections, a Cheyne-Stokes respiration has been observed in cases of uremia, cardiac asthenia, especially from fatty heart, in opium and morphine poisoning, and in various cases of coma. A Cheyne-Stokes respiration is normal in the frog.

An irregular respiration of considerable degree is chiefly to be found in coma and on approaching death. Immediately preceding the latter event, in subjects not dying of general asthenia, the respiration is infrequent, quick and deep, in common phrase, gasping.

MODERN DEVELOPMENTS OF HYPNOTISM.

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WE hear much to-day in the popular press as well as the medical journals of the various remarkable facts and manifestations of hypnotism.

The wonderful performances of Luys & Charcot, of Paris, have traveled far and wide. How hysterical girls have been made to dance and sing and stab the bystanders with imaginary daggers; how diseases have been made to go from one side of the body to another and even from one patient to another under the influence of this mysterious something, which nobody seems able to rightly define.

This sort of thing has now been going on for a number of years until sober minded people are beginning to ask what does all this amount to and what good are these great doctors doing to suffering humanity by all these startling experiments and strange performances. This question may well be asked by any thinking man and would very much embarrass some of these professors to answer.

The question then arises is not this whole affair

an utter failure from a practical point of view, and has not time shown that it is unable to cure our ills and illnesses.

Before attempting to answer this question, let us cast a brief glance at the history of hypnotism and see if this will give us any light.

When the subject first began to be agitated, several years ago, the so-called Paris school, at whose head stood the famous Dr. Charcot, threw itself with great vigor into the study of the question, and in the course of time they developed a most elaborate and ingenious theory which was supposed to cover all the phenomena. This theory was that of the so-called three "classical states" of hypnotism, and it has now become, through much publication, quite familiar to the reading world.

But in the meantime another center of research had sprung up at Nancy on the eastern border of France, and this so-called Nancy school, after long and thorough investigation, arrived at results widely different from those obtained at Paris.

They not only disbelieved in the theory of the three "classical states," but they went further and proved in a most conclusive manner, that it was utterly false in every particular, and that its believers had been completely misled by very simple facts.

They showed that these "classical states" existed only in the imagination of their discoverers, that the phenomena which were supposed to characterize one, could be found in another, and in short, that all three could be turned topsy-turvy at will, if one only possessed the key to the mystery which they had evidently found.

This mysterious something which it would seem must be very near akin to magic, was called by its discoverers "suggestion," and forms the basis of their whole theory of hypnotism.

"Suggestion" is defined by them as the will of one person exerting its influence upon the mind of another and resulting in action.

Thus you tell a person to do a certain thing and he goes and does it. Here you have all the elements required; the influence of your own will upon the mind of the person, resulting in the action being performed. Now in the hypnotic state, this susceptibility to suggestion is very much increased so that all the functions of the body are brought more or less under the control of the dominating will of the operator.

I have known personally of a number of cases in which the menstrual flow and the intestinal secretion have been very markedly affected in this manner.

In sudden stoppage of the menstrual flow from cold or other extraneous cause, this method alone will often suffice to restore it.

It is this principle which lies at the basis of the whole system of the treatment of disease by "suggestion" or "suggestive therapeutics."

which is practiced to-day, by adherents of the Nancy school in all parts of Europe. It is even carried on at Paris, under the very nose of Prof. Charcot and his school, and in calm defiance of its teachings; for the Paris school claim that hypnotism is not available for therapeutic purposes.

The method is always essentially the same, and consists in the following simple procedure:

The various symptoms of the patient are found, and the "suggestion" is then given that these symptoms disappear, laying most stress upon those which seem the most important.

Thus if a patient be troubled with insomnia, he will be hypnotized, and the "suggestion" given that he should sleep that night from ten o'clock until six the next morning, and this idea will be repeated two or three times in different words in order to impress it strongly on his mind.

The result will often be that the suggestion given will be completely carried out, and the sleep will really last the time proscribed, or perhaps it may be only partially carried out and but six hours of sleep be obtained. But even this, it must be remembered, would be a most brilliant result for the first treatment, when judged by the standard of the results obtained with ordinary methods.

To insomnia must be added the whole range of functional nervous troubles, hysterical and neurasthenic conditions, neuralgia, etc.

When we consider the enormous frequency of these functional troubles to-day among all classes of society, we realize what a field this new science may have for its action, even if rigorously limited to purely functional troubles.

It must be remembered also that organic affections have many manifestations which are more or less reflex and functional in their character, and which may be legitimately placed in the sphere of action of the "suggestion." They have not stopped here, but have carried their idea as to the nature of this curious principle to a wider application; reasoning somewhat as follows:

In the hypnotic state the susceptibility to "suggestion" is greatly increased, but this is not in any sense a proof that the action of suggestion is necessarily confined to this state alone.

Experiments made with this end in view have fully confirmed the new theory, which is now formally announced as one of the doctrines of the Nancy school.

This new theory has a most important application to "suggestive therapeutics," for if it is true, patients who can not be put into the hypnotic state, or at least to only a slight degree, are not therefore debarred from the benefits of this method of treatment.

As a rule the suggestion is not so strong in the waking as in the hypnotic state, but at the same time it does act, and oftentimes acts sufficiently to be of decided therapeutic value.

But they do not stop here. If the suggestion does exist in the few cases in which we employ it, what reason or proof is there for believing that it is limited to these few cases, or that its action only takes place at these rare intervals.

If the mind is susceptible to suggestion at one time, why not at another, and indeed why not all through the course of human life, from the period of dawning intelligence to the grave.

Carrying this idea a little further, does it not follow that all our friends and teachers, our whole environment, might have a suggestive influence upon us, gradually but unconsciously moulding our minds and forming our opinions and prejudices. In short, that our whole education might be a sort of involuntary suggestion.

Enthusiasts in any field of knowledge are very apt to go too far, and if the supporters of this new doctrine of hypnotism are no exception to this rule, it may at least be said in their favor that their fault is one that has been committed, more or less, by all discoverers of new truths.

Certain it is that their experiments have been conducted with care and thoroughness, and their conclusions and deductions are as a rule logically made.

This mystery of hypnotism, which, far from being new, is as old as human thought, is far better and more satisfactorily explained by this theory of suggestion than by the now pretty well exploded one of the three classical states. Moreover, there are many mysteries in our mental development, quite as dark as hypnotism, waiting for explanation.

This theory of suggestion in its latest significance, supported as it is by numerous facts in everyday life, seems to offer a probable explanation of many obscure points in our mental or psychical being.

In its simplicity, as well as the breadth of its application, it seems to bear a striking resemblance to other great laws and principles of our being: as to its truth or error time alone can tell us.

SPECIFIC TREATMENT OF TYPHOID FEVER.

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WHILE it might seem the subject of the treatment of typhoid fever is well worn, and that but little progress has been made in its treatment during the last decade, it is yet true that much diversity yet obtains as to its therapeutics, and its rational and specific treatment is far in the rear of both its etiology and pathology.

Long before the microscopic discoveries of Koch and other investigators, the thinking members of the profession recognized the fact that there was

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a specific cause for typhoid fever, and many other diseases, and attempts were made at various times to make such application of drugs that the disease-producing ferment of poison might be either neutralized or destroyed in the blood, and thus cut short a disease which, under other conditions, either lasted until death ended the scene or the fire ceased to burn for want of fuel.

Without any understanding of the necessary environments for the growth and proliferation of the poison, many different lines of treatment were carried out, with the intention of either cutting short the disease, or at least of lessening its severity.

One of the earliest plans of specific treatment was based on the supposition that the excretions of the microbe of typhoid fever was intensely alkaline, and as no living organism can exist for any length of time in its own excretions, large doses of nitrite of ammonium, reinforced by other ammonia salts as certain indications might require, were used. By this plan of treatment the author (a surgeon in the late Confederate Army) claimed the organisms producing typhoid fever were rapidly destroyed, and in a series of two hundred and twenty-five cases he claimed not a single death occurred.

By repeated and continued doses of calomel German physicians claimed to greatly reduce the death-rate. Of later date the use of the salicylates, and more especially the salicylate of ammonium have been highly lauded. The sulphites have also been used for the same purpose; also combinations of iodine and carbolic acid, known as the Bartholow treatment.

Many other plans of treatment, having for their object the destruction or neutralization of the typh-poison, have been tried, but time will not permit further notice of them in this paper. The general plans of treatment, however, have been the so-called expectant, *i. e.*, by meeting the dangerous symptoms as they arise, and thus obviate the tendency to death, be it coming from whatever direction it may.

From almost the earliest history of the disease the mineral acids have held a prominent place in the treatment of typhoid fever; not, however, as a poison destroyer, but as a tonic. They were supposed to assist in keeping up the vital forces until the fever had run its course. All these many years, however, the faculty were combating the destructive effects of an unknown something, a *contagium vivum*, whose effects, both pathological and lethal, were thoroughly understood. Of the laws that governed its growth and reproduction, even of the means by which it entered the human organism, almost absolutely nothing is known.

Within the last decade, stimulated by the investigation of Pasteur, of Koch, of Sternberg, and of hundreds of other active, thinking, work-

ing members of the profession, darkness is rapidly being superseded by light, and we are fast recognizing the truth that all our contagious and infectious diseases are caused by a living entity within the body; a germ that has shape, and form, and laws of self-preservation, and reproduction, just as definite and positive as of any living organism. The veriest tyro in medicine is beginning to understand something, at least, of the life-history of bacteria and their agency in the production of diseases.

In the early part of the fall of 1889, following up the conditions under which pathogenic germs can be cultivated and reproduced, my attention was particularly drawn to the fact that all such germs could only be cultivated in an alkaline medium, and with the converse of this truth, as well, that let a culture fluid, perfect in every other respect, be either intentionally or accidentally made even slightly acid, the germ growth was at once arrested, and not only that, but the germs already in existence soon become feeble and then cease to exist.

It struck me like a revelation, that for the long-continued popularity of the acid treatment of typhoid fever I had found a rational hypothesis. More than that, it occurred to me that I had found a plan of treatment that promised to reduce the proliferation of the typh-poison within the body to the minimum, and possibly to entirely arrest it by a therapeutic agent that would have no deleterious effect on the human organism. Other germicides, such as the mercuriates, carbolic acid, etc., will, when introduced into the body in sufficient quantities to destroy the disease germs, destroy the patient as well.

Acting on my theory, I at once began the treatment of my typhoid cases, as soon as I was reasonably certain of my diagnosis, as follows: For the first thirty-six to forty-eight hours I gave calomel in five to ten grain doses until I had very thoroughly cleansed out the alimentary canal, for the purpose of either sweeping out or destroying all typh-germs that had not migrated from the intestine. While doing this I sterilized all foods and drinks, thus preventing the ingress of new germs. This being done, I put the patient on half drachm doses of dilute muriatic acid given in syrup and water, every three hours, night and day. Now as to results. In six cases thus treated, all recovered. In all, diarrhoea was promptly arrested and never gave any further trouble; in fact, some little attention was required to keep the bowels open. In no case, after the institution of this treatment, did delirium occur. Neither sordes nor dry cracked tongue in any case. In five of the cases the duration of the disease was under twenty-one days. No complication existed, and convalescence was uninterrupted and unusually rapid. In none of the cases did the evening temperature go above 103° after treatment was well

commenced. In one case only, which began with an attack of la grippe, was protracted in its course, lasting nearly five weeks and having as a complication hæmorrhage of the bowels, which, while rather profuse, was readily controlled by morphine and ergot per ore.

It is true that six cases are a small number on which to base an opinion or tabulate results, yet the subject seemed to me to be of such vast importance, and the results obtained so marked, that I felt it a duty to bring the subject before the profession, hoping that many others might take up the work and by the next meeting be able to report results.

[A favorite treatment with very many in the New School, in typhoid, has long been mercurius dulcis—calomel triturated with sugar of milk—in ten grain doses until a free action is obtained upon the bowels, followed by dilute muriatic or phosphoric acid, as recommended by the author, with such other specific treatment as seemed indicated.—Eds.]

CLINIQUE.

PARAPLEGIA OF THIRTEEN YEARS' DURATION—RECOVERY.

By EGBERT GUERNSEY RANKIN, A. M., M. D.

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IN June, 1889, Miss X., a Central American lady, age 30, came under my observation presenting the following history:

She was one of a family of four daughters and four sons, one of the latter died in boyhood, the others now all living in good health. The mother died at the age of forty-five, father living in fair health. Miss X., as a young child, was strong and robust up to the age of three when, during an attack of tonsillitis, two leeches were applied to her throat. From the leech bites she bled continuously for forty-eight hours, the blood "spurting in a little jet." She was profoundly exhausted by this hæmorrhage, which was finally controlled by the application of caustics. From the time of this accident commenced her life of invalidism. She was weak and anæmic, never seeming to regain her strength. At the age of eleven she became chlorotic and remained in that condition for six years. During this period she suffered from constant nausea and vomiting, living entirely on liquid food. There also was severe constipation, the bowels only moving after the administration of castor oil, and always with great pain. Menstruation appeared at twelve and was generally regular and always painless though somewhat scanty.

When about fourteen years old, while overhearing a conversation which greatly distressed her,

she suddenly became, said her sister, "like one crazy," began talking excitedly, and to wring her hands; the eyes assumed a wild expression, and the limbs were convulsed; she knew no one during this attack, which lasted for two hours. When returning to her normal condition, she had a confused recollection that something had happened to her. Three years later, after experiencing for four days a strange indescribable feeling of malaise which she could not explain, she was seized with an illness which her family designate as her first attack. This appeared in the following manner: while reading a book she suddenly fell to the floor unconscious, the limbs were somewhat stiffened, the whole body cold, jaws clenched, impossible to give any food or medicine by the mouth, eyes were closed, breathing natural, "she looked like one asleep." Limbs showed no tendency to remain in a fixed position when moved. She continued in this condition for forty-eight hours, and on recovering consciousness, immediately her mind returned to the book she had been reading. After this she walked bent over "like an old woman" walking with a cane, and at the same time suffering from a severe pain in the lumbar region. Nausea and chlorotic symptoms continued. In course of the following month, which she passed at a summer resort, she regained the power of walking erect, while the pain in the lumbar region became much better though it did not entirely disappear.

Previous to this attack her mind was also much disturbed by anxieties caused by one of the numerous political changes of her country. Her father, to whom she was devotedly attached, is a prominent statesman, of enlightened and liberal views, and on this account has often been exposed to great danger, sudden banishment and exile having been his fate on several occasions. About a month later Miss X. lost a friend whose death made a profound impression, this was followed by the second attack, which was of the same character as the first, the unconsciousness continued for seven hours, on recovering, as in the previous instance, her mind returned to the thoughts which had been broken off. After this she remained in bed in an exhausted condition for forty days, the vomiting became more persistent and severe, vomiting apparently much more than she took. She also had a high fever. She recovered a certain amount of strength, but did not sit with the family at table, the smell of food increasing the nausea. She suffered no pain now but was exceedingly weak and lived in the greatest apprehension of another attack, and for this reason did not leave her room. Three years later, on September 25, 1877, the third severe attack appeared. During this interval, however, there were numerous occasions when she lost consciousness for a few moments, when anything disturbed her very much. These paroxysms were always preceded by a

pain in the cervical region, and pain and palpitation in the epigastrium. During one of these conditions a physician placed on her throat a sponge soaked in boiling water. It produced no sensation, nor did it restore consciousness though burning severely. The scar still remains. The third attack was caused by a severe fright. She remained unconscious on this occasion eight hours. On regaining consciousness the neck was flexed to the left with severe pain, and on attempting to walk found she could not. This was attributed to weakness by her physicians, who prognosed a fatal termination. The commencing paraplegia and contractures, which were the real cause of her inability to walk, appeared to have been overlooked at the time. She remained in bed twenty-one days when, having regained a certain amount of strength, she made another attempt to walk and again found she was powerless. On examination her lower extremities were found much flexed and rigidly contracted. The condition continued gradually increasing until the legs were flexed against the thighs, the heels almost touching the buttocks. The left arm was also contracted and the lower limbs were swollen. The right arm was intact. She was greatly emaciated and weighed only eighty pounds.

At this period she was carried by her eldest sister, who for years has been her devoted nurse. The Faradic current was applied daily and various internal and external remedies administered, including numerous blisters and the moxa, and daily she became worse, with the exception of the neck contraction, which improved a little. In 1878 the death of the brother before mentioned occurred, and on the day of this event the neck contraction again became much more marked. After a sojourn, however, at certain sulphur springs in her native country, this symptom disappeared. By endeavoring to walk on her knees synovitis of both knee joints ensued, causing much suffering; the knees were tapped several times. In 1882 Miss X. came to this city. It was then five years that the limbs had been contracted as described, and her condition was most pitiable, suffering as she did constant and severe pain. All this time, however, she was most uncomplaining and cheerful, and took great interest in everything around her especially in her books and flowers, being a great reader and very well informed woman. On her arrival in New York in this terrible condition she went under the care of the late Dr. J. L. Ranney, and was relieved of the nausea and vomiting, returning to the family table after an absence of seven years. The limbs were now completely paralyzed, rigidly contracted, cold, emaciated, and without sensation. The treatment employed was gradual forcible extension, after which the limb was placed in plaster of Paris. There were twelve operations in all, extending over a period of six months. The result

was favorable, the left limb being quite straight, the right remaining contracted $3\frac{1}{4}$ inches. Caps were placed on the knees for support, and she slowly learned to walk with crutches around her room, the power of locomotion returning in time in a limited degree, and sensation fully restored. The pain in the cervical region and limbs continued severe, and all endeavors to walk followed by great exhaustion and increase of pain. Owing to the relief of the nausea and vomiting, her general condition greatly improved. In the fall of 1882 she returned to her country. After her arrival she became a little stronger and was able to remove the knee caps. Otherwise from this time until 1889 her condition remained unchanged. In June of that year Miss X. again visited this city, and on the 18th of that month presented herself for treatment.

The following is a description of her condition at that time: Tall, slender, with dark complexion, fairly well nourished, walking with two crutches upon which she leans heavily, with body bent forward, is greatly prostrated by walking a block, and suffers great pain in the cervical region, hips, knees and ankles. The upper extremities were normal in movement and sensation. The dorsal curve of the spinal column was somewhat flattened; there was constant pain of a dull heavy nature in the cervical region and in occasionally the lumbar. In the lower extremities, the left limb, the power of adduction and abduction were almost absent and flexion very limited, all other motions were quite free, but not strong. The limb was straight. On the right side, the limb appeared $3\frac{1}{4}$ inches shortened, due to contraction of the hamstring muscles; the knee could be flexed a very little, otherwise there was absolutely apparently no power, the foot dragging as she walked. There was no loss of sensation in either limb. On placing the patient on her back the right limb assumed a position suggestive of the second stage of hip joint disease, though the foot was turned inward. On endeavoring to forcibly overcome the flexion, the spine would bend in preference to the limb. This procedure caused the most intense pain in the region of Scarpa's triangle, the hip-joint, knee and ankle. Intense pain was also caused by any forcible attempt at adduction and abduction in either limb. The bowels were constipated, appetite poor, and there was a constant sickish taste which had been present for years, and which not only caused great annoyance, but interfered with the appetite and relish for food. The tongue was coated white. Kidneys and heart normal.

The treatment of this case extended over a period of fifteen months with various interruptions. It is obviously unnecessary to go into details. The digestion was first regulated and the unpleasant taste removed by the administration

of bryonia and Rubinat water. After this galvanism was applied three times a week. This was continued for a year with various intermissions due to intercurrent illnesses. The current was applied down the spine and along the muscles of the lower extremities. Massage was given for several months daily, then three times a week for six months. The internal remedies were gelsemium tinc., drop doses four times a day for two months, followed in turn by arsenic. iod., potass. iod., ars., syr. phospho. muriat. quin., syr. hydriodic acid and strychnine returning at time to the gelsemium whenever there was any recurrence of the pain in the cervical region. At times the feet and ankles became very oedematous, but as before mentioned there was no kidney or cardiac complication. From the commencement of treatment Miss X. seemed to improve, gradually regaining the power of walking so that by the end of six months she had discarded one crutch and with the remaining one she could walk one, two or three miles without pain or fatigue. The contraction was by this time much lessened and the power of movement in the right limb well established, except at the ankle joint and the toes where it was very feeble. The contraction was lessened by two inches, and with a very great effort while standing she could touch the floor with the heel. In February she was a victim of the grippé, during this illness, and likewise during two previous attacks of bronchitis general treatment was suspended. The grippé left her much prostrated so there was little general improvement until May, when again treatment was suspended owing to an illness caused by vaccination. After this, treatment was again resumed and Miss X. seemed to take a fresh start. About this time also she began taking instructions from Mr. Checkley, a teacher of physical culture, with the view of calling into action the long disused and stiffened muscles, various ingenious and novel exercises being used after a method original, I believe, with Mr. Checkley. This was followed by rapid improvement, especially in the heretofore almost powerless foot and ankle. In the latter part of August Miss X. discontinued the use of crutches, walking with two canes—and at the time of writing the prospect is good for the discarding these.

On reviewing the history of this case the prominent features which present themselves are first those of a condition of prolonged and severe hysteria, contractures, paraplegia, with loss of sensibility; second, the protracted and permanent nature of these symptoms which remained unchanged for five years, then undergoing an amelioration from treatment remaining in *statu quo* for seven years additional, the general condition dating from the third attack of what was evidently hysterocatalepsy. The contractures, though appearing immediately, increased in severity somewhat slowly. The emaciation which was general and

not confined to the lower limbs was evidently due to the long continued vomiting.

This case seemed to me as may be judged from the line of treatment as something more than one of severe hysteria. It is evident, however, that hysteria in one of its gravest and most intense forms was the predominating element, and in the earlier stages of the disease the only one. The nature and persistency of the symptoms however, warrant, I think, the supposition that the prolonged functional disturbances had induced certain organic changes, which, in time, contributed to the still further prolongation of the condition. It seems to me, therefore, probable, that there had been some changes of a sclerotic nature in the lateral columns of the cord. Jolly in his article on hysteria in "Ziemssen's Encyclopedia of Medicine," in speaking of contractures and paralysis which had endured for several years, says: "It is feasible to suppose that in such cases the at first purely functional disorder may later, go on to material changes in the nervous system, that is the supposed condition of excitement of whose material basis we are ignorant after continuing for a lengthened period, is accompanied by grosser changes at its place of origin." Molliere says Erb believes that multiple sclerosis can be caused by long continued and severe hysteria. A case of Charcot, which is quoted in most recent works on nervous diseases, lends support to the hypothesis of occasional organic changes in these conditions. It was that of a hysterical female who had suffered for ten years with constrictures of all four extremities. There were remissions of the contractures, but at length they became permanent. She finally died of erysipelas. On examination sclerosis of both lateral columns was found. Of course this does not prove that the sclerosis was not the original disease and hysteria a complication. At any rate, says Charcot, in such cases it is impossible to determine the exact period when sclerosis develops. Bourneville and Voulet, who have written on this subject, cite a case of hysteria with persistent contractures, the patient dying in a short time of phthisis. An autopsy showed no changes in the cord visible to the naked eye. The microscope, however, showed commencing granular degeneration in the lateral columns. This case, says the authors, was recent and the changes in the cord slight. Both the foregoing in symptoms and history bear many points of strong resemblance to the case of Miss X.

In reference to this subject, Charcot says: "It is undoubtedly legitimate to draw from the foregoing facts some inductions relative to the pathological physiology of hysterical contractures. According to the consideration we have mentioned the lateral columns, or at least their posterior portion which preside over permanent contractures in cases of disseminated or fasciculated sclerosis

—are indicated as being the seat of organic modification which are at first of a temporary character and give rise to hysterical contracture. In course of time these modifications, whatever they may be, give rise to material alterations—genuine sclerosis is established. This may not be perhaps beyond the resources of art, but in any case its existence most assuredly no longer allow us to hope for that sudden disappearance of contractures which form one of the most startling features of the disease when it has not as yet reached the most advanced phases of its evolution.”

As the termination of lateral sclerosis is not so unfavorable as other forms of spinal disease, a small percentage being arrested in their progress and some showing improvement, and a certain few even going on to recovery, it is not impossible to suppose that this lesion may be associated with prolonged intense hysteria and be among the fortunate few. Such it seems to me was the case of Miss X.

NOTES ON TYPHOID FEVER.

By DAVID A. GORTON, M. D., BROOKLYN, N. Y.

AN ANOMALOUS CASE. RECOVERY.

IT WILL be a boon to humanity when our homœopathic confrères are able to give us the *similia* for specific typhoid. At present we have to plod in these cases like our Old School brethren, hoping for more than nature vouchsafes to them, but realizing scarcely better success than the fates accord to them. If we only had a remedy to cure typhoid, to cut it short, to abort it, we should approach the disease with more courage and less fear and trembling than we do now.

But is not a specific for this grave malady too much to expect, from the nature of the case? We have never been able to cure measles, scarlet fever, variola, or any other disease of that class with any specific at our command, and any of these maladies is far less virulent and intractable than the fever of typhoid. The time was when the disciples of Hahnemann were confident of being able to discover a true and unfailing specific for these self-limited diseases; and at one time a partial triumph was heralded abroad in the case of scarlet fever and small pox, *belladonna* being the vaunted specific for one, and *thuja occidentalis* for the other. Of late years, however, one does not hear much about it. True it is, that those scourges continue to be just as fatal as formerly, that is, as they were before the “discovery” of the prophylactic virtues of *belladonna* and *thuja*, but not so fatal as they were when the doctors did not trust them to nature, but “went for them” with all the resources of the pharmacopœia.

We have come to recognize two types of typhoid

fever—the one specific, that is due to micrococci; the other non-specific, due to simple inflammation of the intestinal tract. In the old nosologies, non-specific typhoid corresponds to bilious or remittent fever. The mental symptoms are alike in each, and also the prostration. In the specific type there is ulceration of Peyer's glands, with pink spots on the abdomen; in the other, neither of these characteristics of true typhoid appear. In the latter type, the prognosis is favorable; in the former type, the prognosis is always in doubt. The one may be aborted; the other may not. We feel confident that if ever a drug is discovered that proves curative in a homœopathic sense for specific typhoid it will not sustain the relation of *similia* to the disease, but it will be a germicide, some drug with properties like calomel, only milder and less irritating to the bowels, that will act aseptically to them, and destroy the germs of the fever in the bowels. We know of no remedy that meets this indication so fully as does calomel. Accordingly, calomel is our reliance in typhoid, given in oft-repeated doses of 1-100 grain, greatly diluted with water, that it may be carried as near to the seat of the disease as possible.

A case of typhoid fever fell to my care a few months since which taxed my resources to the utmost. I am not in the habit of reporting cases, remarkable or otherwise, but this one possesses features of exceeding interest, especially the treatment, which renders it worthy of permanent record. The case was that of a lady, age twenty-seven, married. Her health had been previously good, and she possessed a good physique, and what Grauvogl would call an *hydrogeniod* constitution. To make a long story short, and avoid wearisome details, all went well with the case until the fourteenth day. The temperature at that time was reduced to 99 3-5° in the morning, and 100 degrees in the evening. On this, the fourteenth day of the fever, there suddenly occurred a slight hæmorrhage from the bowels, which took me by surprise, as there had not been present the characteristic diarrhœa. A few doses of ergotin were administered, and the patient seemed comfortable. Several hours after the first hæmorrhage occurred another of grave proportions. I was at the bed-side within ten minutes of the attack, and administered five tablets of ergotin 1x. The blood was then flowing from the bowels like a mill-race, in great and intermittent volumes. “The bowels must be stilled,” thought I to myself, and I quickly administered deodorized tint. opil. m. xv; waited fifteen minutes, and repeated the dose. At the end of an hour the rumbling and gurgling of the bowels had ceased, and with it the flowing, the loss of blood, meanwhile, being two quarts by a minimum calculation. The patient's pulse had ceased at the wrist and in the legs at the end of the first hour. She was cold as a stone, perfectly white,

and tormented with the most ardent thirst for cold water. Further treatment consisted in placing a row of bottles of hot water on either side and between the legs; giving half drachm doses of brandy hypodermically in various parts of the body, until one hundred of them had been given, and the administration of cold water, as much as the stomach could bear at one dose, which proved to be two ounces. These doses of water were repeated every fifteen minutes, regularly, for ten successive hours, when the thirst abated, and the quantity was considerably diminished, and cooked milk administered, four ounces every two hours.

The patient proved herself to be a woman of rare nerve and self-possession. In the crisis of her case she seemed to appreciate its gravity and kept perfectly quiet and wholly passive. She retained consciousness throughout. At the end of ten hours there was a slight rise of temperature—the skin was not so deathly cold. At the end of thirty-six hours a flicker of pulsation was perceptible at the wrist, and the normal heat of the blood was nearly restored. Appetite and strength came by degrees, and, finally, perfect recovery.

The capacity of the patient to take water and in such an enormous quantity undoubtedly saved her life, for by that means the normal volume of blood was soon restored, since the water was almost immediately absorbed into the circulation, where it was so greatly needed.

GENERAL CONSIDERATION.—DIET.

The autumn is the season for typhoid fever; and it is a significant fact that in the sea-coast cities it is more commonly met with among those who have summered in the country among the hills. It is not always easy to find the reason for this fact, but generally it is easy enough if we look for it. In many cases, we have traced the cause to cistern-water; in others, to overcrowded boarding-houses with deficient and defective drainage; in others, to the country cesspool; in still others, to foul well-water, made foul by taking the soakings of near closets and of surface slops. It is often the case that the summer boarder must make his choice between the use of well-water thus exposed and cistern-water. The unsuspecting victims of these horrid concomitants of a country hotel and boarding-house return to their sweet and comfortable homes in the city with the germs of fever in their blood. They go about in a listless, weary mood for a few weeks, during the incubative period, and finally come down with the aprexia of fever. They sought the high latitudes, the green hills and grassy lawns, for rest and change, where there were no swamps and pools to breed malaria and mosquitoes, and where wholesome things to eat were plenty, with air to breathe fresh from mountain tops—and, imbibed the fatal germs!—and all through ignorance of the first requisite of a

wholesome boarding-house, pure water and perfect drainage. Nothing can compensate for the want of these. Elegance, fine houses, picturesque surroundings, excellent service and good society all go for naught—or should go for naught—in the absence of these.

It is interesting to observe that few maladies with which the profession is so familiar are treated with so great a diversity of means and methods as the fever of typhoid. All vow, except a few ultra-homœopaths, that there is no remedy possessed of curative virtues for the disease. The New School profession rely on the similitum, as nearly as may be, which embraces a score or more of remedies. The Old School, for the most part, have lost faith in the efficacy of all medicine in typhoid, except such as mollify suffering and meet certain emergencies. Every section seems to have its own favorite remedy. In Massachusetts, for example, sub-nitrate bismuth is popular; in New York, quinine; in other sections, calomel; in still others, salicylic acid, or salicylate soda. In Germany, the wet pack had its day; so, likewise, in America.

Similar diversity of practice exists in regard to the diet in typhoid. A quarter of a century ago it was gruel everywhere. Then it was beef-tea and continued to be beef-tea until Dr. Fothergill came out with his foolish and unfounded fulmination against it. Now it is milk, mostly—milk sterilized by heat—with a liberal supply of whiskey. The sole aim of treatment by the dominant school, under the leadership of Dr. Flint, of New York, is to support nature. To this end, as many as two quarts of milk are given these cases, in some instances, every twenty-four hours. This is the method pursued in the hospitals of New York and the Long Island College Hospital with the usual average of recoveries, from 75 to 80 per cent.

My experience in the regimen of these cases leads me to doubt the wisdom of the popular policy of excessive feeding. I have tried both policies, that of abstinence and liberal feeding, and have been more successful with a minimum of nutrition. In fact, I have seen cases recover with scarcely any food at all except whiskey and water. One thing is certain, nothing supports nature in typhoid fever except alcohol and water. I have given patients three pints of cooked milk per diem throughout the course, from twenty-one to forty-two days, at the end of which the patients would be reduced to a skeleton; and I have followed the opposite course and kept my patients on a minimum of milk-gruel, with a small allowance of whiskey and a large allowance of water, with a like result at the end of the course, so far as support of nature is concerned, but with better result in the average of recoveries. There was certainly no more wasting under the fasting than feeding. My preference, therefore, is decidedly in favor of

fasting. If one is to be guided by the indications of nature in typhoid fever one will withhold food, for every kind of food is repugnant to such a patient, and only water, or acidulated water is craved by him. In some cases nothing else will be tolerated. And we seriously doubt if food is useful so long as nature turns against it—loaths it—and the ravages of the disease go on in the bowels. It certainly can not be digested, and we know it is not assimilated. May it not then become a *materie morbi* in the intestinal tract and add to the complications which exist therein? The great body of the profession think otherwise, that is, they are in favor of the policy of feeding typhoid fever cases, and the individual may properly feel loth to adhere to a method on his own authority which has against it the sentiment of the great body of his confrères. It must be confessed, however, that the modern method of mild medication and the use of supporting measures, antiseptic appliances, etc., are far more successful in this malady than was the old method of active medication and crude feeding. It is always wiser to withhold a drug, in serious cases, when it is not known whether it will do good or harm—at least, so think the older and wiser heads in the profession, and if the younger heads would heed the suggestion they would have fewer failures to record.

ANEURISM OF AORTA—TWO CASES.

By J. W. MACLACHLAN, M. D.,

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I. CASE.—Maria C—, age forty, widow, Irish. Admitted to hospital, January 1, 1890. Died, May 14, 1890. Heredity unknown. Parents died of old age. Has used alcoholic liquors to excess for several years. About two years ago began to have slight cough and shortness of breath, fullness in chest and pain on right side, which continued to grow worse. Has been in hospital for treatment several times in past two years. About one year ago noticed small tumor and bulging at upper part of sternum, which has gradually increased in size. She is troubled with severe attacks of dyspnoea. Can not lie with head low, pain quite severe at times in left side of chest and surrounding the tumor, palpitation of heart, sleeplessness and ringing in the ears, hacking cough, aggravated at night and when lying down, frothy sputa, poor appetite and obstinate constipation.

Physical examination showed marked chronic bronchitis, tumor at upper part of sternum, ten to twelve inches in circumference and elevated three inches above level of chest, dark discoloration of integument over tumor, the walls were apparently very thin and soft on pressure.

Barium, merc., kali iod. ars., dig. gallic acid and other remedies were given as seemed indicated,

but with relief. The severe attacks of cardiac asthma were somewhat relieved by digitalis. About two months before her death the walls of the tumor became very thin and rupture seemed inevitable, but the walls gradually began to thicken, and before she died were very hard and tense; due to the formation of the ante-mortem clots. During last few weeks of her life it was necessary to administer opiates in order to secure any rest for the patient, the dyspnoea and pains in the chest being so severe.

Autopsy.—Height, 5 feet 3 inches; chest, 31 inches; head, 22 inches; abdomen, 27 inches. Rigor mortis. Body fairly nourished. There was immense dilatation of the aorta at the junction of the transverse arch of the ascending and descending aorta. Ante and post-mortem clots in large quantities in the aneurism. Heart, aneurism and ante-mortem clots weighed seventy-six ounces. The ante-mortem clots alone weighed twenty-four ounces. Three inches of the upper part of the sternum was nearly all absorbed and forming part of the walls of the aneurism.

The heart weighed eleven ounces. Pericardium adherent and large amount of fluid in sac. Innominata artery was on right side. Left ventricle—cusps of pulmonary valves very close together, aortic valves normal, ascending portion of the arch of the aorta full of calcareous plates, also atheromatous patches, coronary arteries normal, cusps of the mitral valves shortened, cordæ tendinæ somewhat lengthened, slight fatty degeneration of the muscles of the heart, evidence of old endocarditis in left auricle.

Right ventricle—some ante-mortem clots in tricuspid valves, semi-lunar valves normal, cusps slightly dilated, foramen ovale normal.

Right lung emphysematous and oedematous, slight adhesions, left lung was strongly adhered, marked purulent bronchitis, with emphysema and oedema. Liver weighed fifty-two ounces, nutmeg appearance throughout its substance, spleen weighed twelve ounces, fatty infiltration. Right kidney weighed two and a half ounces, left four and a half ounces, capsule adherent in both and cortex thin—cirrhotic kidney.

II. Case.—Mary K—, age fifty-eight, single, German, occupation, house-work. Admitted, September 24, 1888. Died, June 2, 1890. Three months previous to the time of admission, she had been here for treatment and discharged cured. The cough again returned about a week before entering the hospital. By what I can learn of the past history of this case from the time of admission until she came under my care, May 1, 1890, she constantly complained of pain in the top of the head, severe hacking cough, which was much aggravated at night and when lying down, frothy sputa, appetite fair, but troubled a great deal with nausea and vomiting, sleeplessness, pain through left side of chest, great dyspnoea, etc.

During all this time various remedies as ars., ars. iod., phos. hepar, sulph. conval., dig. and others were given, but with very unsatisfactory results.

During the short time I had charge of the case, she complained of constant hacking cough and choking feeling. It was great effort for her to talk on account of the attacks of cardiac asthma and the severe pains through the chest. She was obliged to sit up most of the time, and it seemed impossible for her to obtain any sleep whatever. Poor appetite, constipation, great emaciation.

Physical examination showed heart sounds very intense, strong and rapid, marked hypertrophy of right ventricle, strong pulsation in infra-clavicular region, with slight swelling and appearance of aneurism, purring sound over aorta, right pulse weaker than left, marked chronic bronchitis, veins enlarged.

Autopsy.—Height, 5 feet 2 inches; measurements of head, 21 inches; chest, 28 inches; abdomen, 26 inches. Rigor mortis marked. Body greatly emaciated. Rachitic condition of ribs from scrofula probably.

Pericardial cavity filled with fluid blood. Evidence of pericarditis, diphtheritic membrane over the entire heart. Heart and lungs so adhered they could only be removed together. Calcareous plates all through the aorta. Aneurism of the arch of the ascending aorta, which was filled with large ante-mortem clots, calcareous plates and atheromatous patches all through the aorta; also calcareous plates around the left coronary artery and atheromatous patches around the right, cusps of the mitral valves were shortened and granular, cordæ-tendinæ lengthened.

Heart, aneurism and ante-mortem clots weighed forty ounces. Heart without clots weighed twenty-six ounces.

There was slight calcareous plates in mitral valve and slight dilatation of right ventricle.

Pleura adherent on both sides, particularly strong on the right. Considerable fluid in right pleural cavity. Left lung weighed ten ounces, right fifteen ounces.

Chronic bronchitis, passive congestion and slight oedema in both lungs. Liver weighed forty ounces, nutmeg appearance. Each kidney weighed about five ounces, and otherwise quite normal. Spleen normal. Small fibroid tumor of the uterus.

GALVANO PUNCTURE IN HYPERTROPHIED TONSILS.

By FRANCIS B. KELLOGG, M. D., TACOMA, WASH.

THE climate of Western Washington is an unusually healthful one. It is, however, a moist one, and hence a favorable habitat for troubles of a catarrhal nature as well as those arising from a rheumatic tendency. Tonsillitis may belong to

either or both of these classes. In a great many cases the acute attack is in the nature of an exacerbation of a pre-existing sub-acute or chronic inflammatory condition, evidenced by a permanent hypertrophy of the gland with more or less congestion. Such enlargement necessarily involves a modification of the functions and secretions. Perhaps the most frequent witness of this is the attack of so-called "Follicular Tonsillitis" in which the excessive secretion accumulates in the lacunæ of the tonsil, becomes inspissated and takes on a septic nature, assisting by its simple presence to aggravate the already existing inflammation.

When the excretory duct has become obstructed, the accumulated septic material generates an acute local inflammation, *i. e.*, tonsillar abscess or acute tonsillitis. It is this condition which is commonly brought to the attention of the general practitioner, and at such a time palliation is the only resource, and is generally ineffective and unsatisfactory at best. It is respectfully submitted that the obligation of the physician is not discharged with the relief of this acute condition. It is pre-eminently the duty of a conscientious physician to remove the cause of disease where this is possible, and thus secure immunity from similar attacks. This is especially the case in the disease in question since it is so fruitful a source of both general and local trouble. I do not ascribe to hypertrophied tonsils all the ills that flesh is heir to, but I do believe that they are the cause of more widespread disturbance, and oftener associated with depraved nutrition than any other single abnormal manifestation, and also that they are generally passed by as insignificant in general practice. If this paper shall influence a single physician to watch for and properly reduce such hypertrophied glands or refer the same to a specialist, it will have added so much to the sum of human comfort.

After a careful consideration of the various procedures adopted to accomplish this reduction, I am convinced that the galvano-puncture offers the greatest advantages for the following reasons:

In galvano-puncture, the peculiar glandular structure of the tonsil is broken up, and with it the vascular supply which has shared in the abnormal development. This renders abnormal secretion or sudden engorgement and inflammation in the remnant of the tonsil impossible.

In amputation, on the contrary, the stump (for the gland is seldom enucleated entirely) partakes of the same nature as the original tonsil and sooner or later will take on a similar growth. I have a case now under treatment which has suffered amputation at three different times. Again the absorption set up by the cicatricial contraction, after the puncture by far exceeds the destructive action of the cautery in reducing the tonsil. The pain is insignificant. It is only with a very timid patient that I even apply cocaine.

Although this treatment lacks the brilliancy of amputation with the tonsilator, and although its application covers a period of several weeks instead of a few minutes, it also lacks the danger of hemorrhage and is accepted more readily by the patient. My practice is to make three or four punctures directly into the substance of the tonsil with a galvano-cautery point at white heat. This is repeated at intervals of a week from three to five or more times, depending upon the size and density of the tonsil. If the patient is at all timid I do not attempt at the first sitting more than the demonstration that the procedure is painless. No after treatment is required unless an antiseptic gargle is directed for moral effect.

A DISLOCATION OF THE STERNUM.

By J. E. MOITH, M.D., FISHKILL-ON-HUDSON, N. Y.

JOHN M—, a brickyarder, aged sixty, on September 7th, being in an intoxicated condition, started to go, as he supposed, down the stairs, which were on the outside of the shanty where he resided, and walked off the platform, second story, striking, no doubt, on his shoulders, as I found contusions on them and on no other part of his body.

He lay there all night, and on examining him early next morning, I found what I supposed was that rare fracture, viz., fracture of the sternum. I called Dr. Guernsey in consultation, and we agreed that it was of a still rarer kind—a dislocation of the sternum, forward and upward, without any dislocation or fracture of either clavicles or ribs. I improvised a splint of a shingle and putting a well-stuffed pad behind it, bandaged the chest as would be done for fractured ribs, and in three days the sternum had receded considerably, and at present date the deformity has almost disappeared.

Of this rare and dangerous accident Malgaigne has recorded ten cases, and I have been able to find no other on record. Traumatic cases are caused either by direct blows upon the bone itself, or, as in this case, by extremely violent backward jerking of the trunk as when a person falls from a height. Nearly all the cases quoted have been complicated with other injuries, and have terminated fatally.

A Simple Expedient for the Arrest of Epistaxis.—Dr. A. H. Fridenburg (*Medical Record*) reports a case in which a serious result was happily prevented by a simple but ingenious device. A man came to his office bleeding profusely from the nose, and so exhausted from the flow that he was in danger of swooning. The doctor found it necessary to close the nasal passage anteriorly and posteriorly without loss of time, but had no Bellocq's canula at hand. "In this predicament," he writes, "I bethought me of a simple substitute for the Bellocq, which served me so well that the hope that it may render the same service to others,

under the same embarrassing circumstances, must be my excuse for presenting this account of an otherwise very uninteresting experience. I had some rubber drainage-tubing, of assorted sizes, on hand, from which I selected a piece of small caliber, but of sufficient resiliency, about the thickness of a parlor match, and about ten inches in length. One end of this I introduced into the right nasal cavity, and pushed it along the floor of the inferior meatus, through the clots, until it reached the pharynx, whence it curled forward within easy reach of forceps, by which it was drawn out at the mouth, meeting the other end projecting from the nose. The subsequent steps were similar to those employed after the passing of the Bellocq canula. To the mouth end of the tubing I attached a small compact wad of lamb's wool, rolled in iodoform gauze, and, drawing upon the nasal end, I slipped the wad into the post-pharyngeal space and stretched the tubing until the cessation of all trickling of blood down the post-pharyngeal wall showed that the post-nasal aperture was occluded. Still keeping the tubing tightly drawn to its fullest extent, I rapidly packed the anterior nasal recesses with long strips of iodoform gauze to just within the nostril, all around the tubing. I now tied a knot in the rubber, close to its exit at the nostril, and through it passed a cross-piece of tubing of somewhat larger caliber, just long enough to fit easily inside the nostril. Finally, releasing the end of the rubber, its elasticity caused it to fly back, so that the knot and cross-piece rested upon and firmly held in place the anterior gauze packing. The nasal cavities were thus firmly occluded at both outlets, without any external evidence of the tampon, or any unsightly bulging of the soft parts of the nose. The elastic tubing was at just a sufficient tension to support the packing without the least discomfort to the patient. After forty-eight hours it was easily removed, without recurrence of the hemorrhage, by slightly drawing the knot out of the nostril and cutting the tubing just behind it."

Artificial Feeding of Infants.—Dr. Geo. B. Fowler in a paper read before the Obstetrical Society of New York discusses this subject. "All are agreed," he says, "that the important difference between cow's and human milk is the excess of casein that it (the former) contains, and that it forms a too firm and insoluble clot. Hence the various devices designed to modify the solidity of the casein clot, and to adapt cow's milk to the delicate requirements of infants and invalids. I am quite familiar with the methods generally in use for this purpose, but have now come almost exclusively to employ that which it is the object of this brief paper to describe. It is as follows: Put four tablespoonfuls of rice into three pints of water, and boil half an hour; then set aside on the back of the range to simmer during the day, water being occasionally added by the cook to maintain the original three pints. At night strain through a colander and place on ice. When cold a paste is formed. Three tablespoonfuls of this paste are added to each nursing-bottle (half pint) of milk, and fed during the next day, a fresh supply of rice-paste being under way in the meantime. Should there be constipation, I use farina, prepared in the same way, and used in the same proportion. Rice is astringent, farina laxative. From a series of careful experiments with these pastes I am convinced that the hydrated starch granules interpose themselves between the particles of casein, and prevent the formation of solid clots. By this process we do not dilute the cow's milk, but, on the other hand, soften it, and add a constituent carbohydrate, in which, compared with mother's milk, it is weak. No fear may be had but that starch thus treated and administered will be digested by a child of three, or even two, months. My success with this preparation has been such that I offer it to the profession with great confidence."

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THE HOSPITAL IDEA AS APPLIED TO THE TREATMENT OF THE INSANE.

THE annual meeting of the Superintendents and Trustees of the New York State Hospitals for the Insane was held at the Middletown State Hospital at Middletown, N. Y., September 17, 1890. There were present at the meeting Dr. J. B. Andrews, Superintendent of the Buffalo State Hospital; Dr. T. S. Armstrong, of the Binghamton State Hospital; Dr. P. M. Wise, of the St. Lawrence State Hospital, at Ogdensburg; Dr. G. Alder Blumer, of the Utica State Hospital; Dr. H. E. Allison, Superintendent of the State Hospital for Insane Criminals at Auburn; Dr. C. W. Pilgrim, Superintendent of the Willard State Hospital at Ovid; together with representatives from the Board of Trustees and Managers of the various institutions named.

The meeting was held in the new Chapel and Amusement Hall which had just been completed, and was used for the first time on this occasion. Superintendent Talcott, of the Middletown State Hospital, gave the principal address of the meeting, which was a dissertation upon "The Hospital Idea as Applied to the Treatment of the Insane."

Following are extracts from Dr. Talcott's address:

"Last year, in obedience to a sentimental and appropriate public demand, the names of our asylums were changed, and they are now known as State Hospitals. Having acquired a new name, we should seek to monopolize every principle of beneficent and kindly care for the sick.

"Hospital care for the insane implies buildings which are better adapted to the purposes for which they are erected than some we now have—

easy, comfortable and attractive furniture; scientific sanitation, restorative food, skilled nursing, and improved medication; together with all that is wisest and best in the use of heat, of sunlight, of fresh air, of recuperative rest, of stimulating exercise, and of every means that tend to the prolongation of life and restoration of health. When these means for the care of the insane shall have been provided by the State for all the victims of insanity residing within the boundaries of this commonwealth, then the opportunity for reaping the benefits to be derived from treatment in our State Hospitals should be as broad and open and outstretched as the hand of charity herself.

"Many of the victims of long-continued insanity have recognized at the outset their oncoming mental disasters, and have sought by vague personal efforts to avert them.

"Now we wish, emphatically, to call your attention to the necessity for early treatment of the insane, and to urge as a means to this end the opening by legal process of the doors of our State Hospitals for all who may wish, *even voluntarily*, to enter them for treatment. As we have already stated, early treatment is the most successful, as every alienist will admit, and as the statistics of every asylum will show. Hence, if you would cure the largest possible percentage of the insane, and keep the community as free from insanity as possible—thus exemplifying the true Hospital Idea—you must grant the privilege to the victims of mental disease of early admission to our state institutions.

"If men and women could be permitted to freely and voluntarily avail themselves of hospital treatment in the early stages of their disease, they would come to accept such benefits more readily; they would recover more rapidly; the usefulness of the hospital would be enhanced, and the apparent disgrace now attached to enforced and involuntary treatment would, to a large extent, be wiped out. State Hospitals for the insane should be as free for admission of patients needing treatment for mental disease, as are other hospitals for the admission of those affected with general or special diseases. Such freedom of entry and egress (for the voluntary patient may depart when he pleases) to and from our State Hospitals is in accordance with the spirit that pervades the Constitution of the United States.

"It is wrong, unjust, unconstitutional to stamp the name of a disease, held in abhorrence and feared as a disgrace through all time, upon the forehead of an individual who, without the stamp, is willing to avail himself of every possible opportunity for treatment and cure.

"Let us have a law which shall grant the admission of voluntary patients to our State Hospitals, and let commitments be restricted simple and solely—as the law originally designed—to those who must be confined against their wills for

the proper protection of themselves and the community.

"We come, now, to consider another phase of the Hospital Idea. We advocate and urge that it is the State's duty to provide suitable means for the care of every victim of insanity, both poor and rich, within the commonwealth.

"We are informed that there are no private asylums in Holland to-day, but that her public institutions care for all her citizens who may become afflicted with insanity. The spirit and substance of the Constitution of these United States were borrowed from the sacred guarantees of Holland, and we may do well to imitate once more that broad and benevolent spirit which has characterized the action of the Hollander throughout a long and glorious history.

"Even in conservative England, the plan of admitting private and pay patients to the county asylums designed exclusively for the care and treatment of paupers, is being successfully advocated; and if you continue to pursue a course long since adopted by Holland, imperfectly attained here, and eagerly sought after, at last, in old England, you will give exercise to the activity of a lofty wisdom. By so doing, you will add but little to the general expense of erecting State Hospitals; you will keep the care of the insane keyed to a soprano pitch; you will economize in the maintenance of indigents, while, at the same time, you will surround them with every needful comfort; and you will continue in a self-respecting and self-supporting condition a considerable number of the insane who now pay moderate rates, and who would be pauperized in a short time if compelled to leave State Hospitals and seek care and seclusion in private institutions.

"Another thought is suggested by the term, 'The Hospital Idea.' Our State Hospitals have been for many years, they are now, and they should continue to exist as institutions where the disease known as insanity may be treated and cured.

"These hospitals should never be allowed to degenerate into mere receptacles for the herding and boarding of probably incurable cases. The hospitals should be made always ready for the reception and care of the acute insane as they come from the community. When the insane have been treated in them, and have received every possible stimulus to renewed health without responding to such stimulus, then those who do not recover should be cared for, and have their every want and necessity properly ministered to in dormitories or cottages surrounding or in the vicinity of the hospital proper.

"Indeed, instead of impairing the usefulness of our State Hospitals by overcrowding any of their wards, it would be better, in my judgment, to leave the county asylums intact for the present, or until new buildings are put up on State farms for the reception of chronic cases.

"Very much has been said and written about the deplorable condition of the insane patients in county asylums. Let us consider, for a moment, the actual condition of both sane and insane paupers in the county institutions of this State. As a matter of fact, a large proportion of the insane in county asylums are the victims of either secondary dementia or chronic mania, and such patients have, to a very great extent, lost their ordinary sensibilities. This loss may be one of those eternal compensations which have existed in all the history of human experience. While the insane have been deprived, by reason of their disease, of self-protection and self-control, they have also, in many cases, lost the ordinary sense of physical and mental suffering. Hence, although the surroundings of such patients may be plain and even uninviting; while the food may be less nutritious than that which is some times afforded in an hospital; while the nursing may be less vigilant and less careful than it ought to be, yet, in spite of these facts, if they are admitted as facts, the insane in county asylums do not suffer, in my judgment, nearly as much as the average sane pauper. Here is a case of dementia that absolutely does not know whether he is cold or warm, whether he is clad or unclad, whether he has eaten corn-meal pudding or quail-on-toast for dinner; and yet this individual, steeped in the blessed forgetfulness and insensibilities of disease to such an extent that the spirit of suffering has passed forever from his being, is to be taken to a State asylum and cared for at the rate of three or four dollars per week. On the other hand, an old man suffering with chronic rheumatism, pinched and pained by every change of air, weak and worn by disease, with joints springing in agony from their sockets, feeling the need of stimulating diet, of soft and warm clothing, of artificial heat and invigorating sunlight, is left to languish in the county almshouse with less care than that already accorded to the demented, without suggestion of change or improvement, because he happens to be sane.

"Now it seems to me that there has been a lavish expenditure of superheated and overflowing sympathy in behalf of the dement, while the sane paupers, who actually sense the misery of their daily surroundings, are left unaided, unthought-of and unwept-for. The jewel of consistency sometimes needs reburnishing and resetting, even when it is locked in the ring of philanthropy.

"The exemplification of the Hospital Idea is most successfully insured where there is plainness, directness and brevity of detail. Where there is a multiplicity of details then the daily duty of looking after those numberless and intricate regulations becomes magnitudinous and extraordinarily burdensome. The medical officers of the institution, where the Hospital Idea is to be exemplified in its most benign aspect, should be free

after the first hour of the morning to attend to the most important work of the hospital—that of ministering to the necessities of the sick.

"Finally, if the Hospital Idea is fully and religiously exemplified in the daily practice of our public institutions in this State, we shall have a preservation of those secrets which form the bulk of every patient's history, and which should be kept as sacred and inviolate and hidden from every observing eye as if they were not upon record, but secure in the faithful breast of the physician himself.

"In no other circumstances in life are family secrets so likely to be divulged, and so sure to work dire injury against the family, or against the victim, as in cases of insanity. Are we keeping the Hippocratic oath in their behalf? Are we protecting their rights, and obeying the common and ancient law relating to non-divulgence? Let the present laws, and the present requirements under the law, answer this most solemn question.

"The Hospital Idea seeks to exemplify everything that can be inspired or suggested by the spirit of kindness or sympathy, and it seeks to embody in the line of practical utility everything that can be acquired in behalf of the sick by intelligent human thought or action. The Hospital Idea embraces all that is known in sanitary science as applied to the protection of human life; it embraces all that is known of diet as applied to restoration of impaired physical energy; and it embraces the education and training of nurses, whose nightly vigils are to supplement the daily visits of the physician. The Hospital Idea is the loftiest embodiment of that mighty and far-reaching rule: 'Do unto others as ye would that they should do unto you.'"

Dr. J. B. Andrews, one of the gentlemen appointed to discuss Dr. Talcott's paper, favored thorough hospital treatment for the insane; and to this end suggested a sufficient number of wards to secure a proper classification. A thoroughly equipped medical staff is likewise essentially important. Both superintendents and assistants should possess not only a high order of attainment in their profession, but they should have the power of impressing their personality upon others, and that practical good sense and judgment which is better than knowledge. As an important adjunct to the physicians there must be a corps of nurses sufficiently large and specially trained for their work. The distinction between the trained nurses and the old asylum attendants is a fair characterization of the difference between the hospital of to-day and the old-time asylum.

Superintendent Andrews dwelt upon the necessity of better treatment of nurses, and providing them with better quarters, separated from the scene of their duties, where they may enjoy well-earned rest after their labors.

The crowding of insane hospitals was deplored,

as interfering with that individualized treatment which is the key-note for carrying out the Hospital Idea.

Dr. P. M. Wise said he had been prominent in advocating a change in name from asylum to hospital. He thought that a distinction should be made between *pauper* as the term is ordinarily used, and the insane person who is dependent on public support; that the stigma which accompanies the former could not properly be attached to the latter individual, and that the name *pauper* should be abolished as applied to the insane.

Dr. Wise offered the following definition of "Hospitalization" as applied to institutions for the insane:

"The recognition of all insanity as a sickness of the material body, which, however obscure the cause of its existence and continuance, is dependent upon disordered physical conditions either in or affecting the brain and through it the mind. That a certain proportion of the cases recover under proper treatment, and the remainder continue insane, but that all cases are susceptible, if not of recovery, of an improved condition of health and mind, under proper direction and treatment; hence all cases should have treatment while their disease continues."

Dr. Egbert Guernsey, of New York, Vice-President of the Board of Trustees of the Middletown State Hospital, endorsed Dr. Talcott's address. He thought the people of the State were now educated to the point of voting sufficient appropriations to give early hospital care for all the insane, both poor and rich, within the Commonwealth.

Mr. George H. Decker, of the Board of Trustees, followed with a paper upon "The Functions and Duties of Hospital Trustees," in which he clearly set forth the utility and importance of the office "Trustee" in the management of the State Hospitals for the Insane. This paper called forth an interesting and profitable discussion by gentlemen representing the Boards of Trustees of several of the State Hospitals.

At intervals during the day opportunities were given for inspecting the hospital in all its departments, and the general impression prevailed that the Middletown State Hospital was a thoroughly equipped and excellently conducted institution.

The next meeting of the Superintendents and Trustees of the State Hospitals will be held at the Binghamton State Hospital in September, 1891.

THE prospectus and first announcement of the Cleveland Medical College has been received. This college has been founded, we believe, by ex-Professors of the Homœopathic College, and will doubtless to a certain extent take its place. We are pleased to see, naturally, that the new college has no *sectarian* designation, and that it

is proposed to teach the *whole* of medicine instead of a part, as is done in some schools. It is announced that the materia medica as given in the United States Dispensatory will be taught, as well as the art of applying drugs in accordance with the theories of Hahnemann!

We do not hesitate to say that this plan meets our views exactly, as it is what we have been advocating for years!

It is a source of gratification to the *TIMES* to observe that the seed which it has been casting broadcast these many years has taken root, and that we are to have medical union at least so far as the teaching of this college is concerned.

The college has our best wishes, and will have such support as we can give it, and we urge our friends everywhere to use all possible influence to make the school a success!

Now we would like to see the so-called regular schools teach their students how to use small doses of drugs intelligently! At present students in these colleges are taught the effects of drugs in lethal doses upon animals, and the clinical results of their use with human beings. This is not sufficient for scientific purposes, not in accord with the spirit of the age, and absolutely insufficient for practical uses with the sick, as any one may find out by experience if they will only take the trouble.

It is a well-known fact that drugs in small doses will not have the same effect that drugs in large doses will have, and *vice versa*, therefore it must be apparent that the size of the dose must carry with it the indications for its use, and students should be taught this.

When this is done, there will be less polypharmacy and more single remedy prescriptions, which is to be desired. The student when he leaves college should be able to individualize his drugs in small doses as well as in large, and these indications are *not* identical!

To take a familiar comparison, let us suppose that a patient requires an anodyne, and that opium is the appropriate remedy, but no one would expect the desired result from a single drop of the tincture of that drug, while on the other hand if another result is desired, the above-mentioned dose, frequently repeated, would act like a charm.

But it is useless to attempt these results without the requisite knowledge which alone will enable the result to be obtained.

The dual action of ipecacuhana is not only acknowledged by all medical men, but its use in small and frequently repeated doses is quite universal in cases of nausea. But any one who has ever used this drug to much extent for the

relief of this symptom, well knows that it is useless except in cases to which it is specifically adapted. The use of ipecac empirically for the single symptom of nausea, will be met with failure in a large majority of such cases, but when it is indicated, the relief is as if by magic. It is as much our duty to know when to administer the drug in small doses for the relief of nausea, as it is to know when to use it in large doses for its emetic effect.

It must be evident to every progressive medical practitioner to-day who is an observer, that a knowledge of the dual action of drugs is a necessity, and all students who fail in this knowledge, only have a partial and insufficient view of materia medica.

It is the duty of all medical schools to remedy this defect, thus aiding the union of medical men as well as benefiting humanity.

Sectarian schools will soon become obsolete, when the dual action of drugs is taught in all medical schools!

It is the demand of the hour, that the teaching of materia medica shall be made to accord with the progress of science and of experience.

THE sectarian journals teem with discussion of theories and dogma, backbiting each other for technical differences of opinion which are immaterial to the broad, progressive, practical *physician*! The time and space could be better occupied!

So long as sects exist, there will be abuse of each other on dogmatic grounds, and students will be neglected, or be taught only a part of what they should know of medicine. The medical school of the future must teach the *dual action of drugs*, or else it will be left in the lurch!

THE *Medical and Surgical Reporter* of Oct. 18, 1890, has an editorial on medical examiners, in which it takes the ground always maintained by the *TIMES*, that there should be but *one* board, and that appointed by the powers that be—in this State, for instance, by the Regents of the University, regardless of sect or "school."

The editor of the *Reporter* regrets, as we do, to find the homœopathists joined to the quacks and frauds in opposing this measure, for fear of injustice! There is no fear of injustice in these days, and even the possibility could be removed by confining the questions in materia medica to the physiological effects of drugs, which are taught in every medical school.

It is an injustice for the minority schools in medicine to demand the representation they do,

which is far beyond what the relative numbers would warrant!

There is said to be 200,000 physicians in the world who do not designate themselves; the homœopaths claim 13,000 and the eclectics about the same, therefore the homœopaths are not over one-fifteenth at most of the whole medical body. Justice demands, if we are to have mixed boards, that the schools be represented in proportion to their numbers!

The simplest and best way is to have one board, and limit the questions, as we have said before, to the physiological action of drugs, which all students are supposed to know.

THE *Pharmaceutical Record* gives, from a learned scientific authority, an analysis of a glass of beer. There is no industry which yields such large pecuniary returns as the manufacture and sale of beer, and we have no doubt the millions of beer drinkers in this country would like to know just what they are taking when they pour down glass after glass of their cool, foaming nectar. The analysis in German, of course, reads almost like a poem in hexameter, and is, alcohol, althopfenol, alce, belladonna, biercolour, bilenskraut, bitterklee, buchenspäne, caraghenmoor, cologurten, enzian, fichtennadeln, gogel, gelatine, glycerine, haselneuszspäne, housenblase, herbstzeitlose, hopfenaroma, hopfenbittersäner, ignatiusbohne, ignwer, kanille, kaatoffelzucker, kardonenediktenkraut, kokelskorner, nux-vomica and about forty other ingredients which we do not give, simply for fear our friends may get the cells of their brain so tangled as to produce general paresis. Waiter! ein lager.

A PAPER by Dr. Robert Reyburn, read before the Medical Society of the District of Columbia on the "Curiosities of Homœopathic Literature," is going the round of Old School medical journals. The curiosities, to which is added a running commentary, grave or gay, as will best show the wit of the writer, are taken from a "Catalogue of Morbific Products, Nosodes and other Remedies in High Potencies, by Samuel Swan, M. D., 13 West 38th Street, New York." Dr. Swan is a charming gentleman, quite able to argue his own pet theories, but he will be rather amused at any one asserting, what he has never done, that his morbific products are homœopathic either in preparation or action. The amiable and witty Dr. Reyburn, a pity we can not say honest, might with just as much truth and propriety hold up Col. Ingersoll as an exponent of the Roman

Catholic faith as to draw his curiosities of homœopathic literature from Dr. Swan's catalogue. Dr. Reyburn might employ himself to better advantage by going over the recent literature of his own school and seeing how much would be left of therapeutic progress after he culled what had been borrowed from homœopathic literature without credit.

TWO ladies in Washington have opened a nursery for the instruction of mothers. Lectures are given, nursery improvements are exhibited, food cooked, and last, but not least, a baby is washed, dressed, fed and put to sleep by expert hands in the presence of the audience. In New York, near Tompkins Square, directly in the midst of an immense baby population, a German and his wife recently started a bathing-house for babies, and during the past summer have done a rushing business. The charge of the bath is ten cents, which includes the dressing and undressing of the child and a thorough wash.

THE introduction of the electric light into our places of business and dwellings is directing special attention to its hygienic qualities, contrasted with daylight and gaslight in regard to their influence on the acuteness of vision. In gaslight the acuteness of vision is lessened one-tenth as against daylight, while it is increased by the electric light, especially as it regards the distinction of colors. A gas jet, furnishing as much light as an Edison burner, will give off twenty times the amount of heat.

DR. BARR, in the *Therapeutic Gazette*, gives to the profession a statement which, if true, will cause him to be held in grateful remembrance by thousands who, during the summer months, are only deterred from drinking iced-tea from the fear of its nerve exciting qualities. Tea, if kept ice cold for a short time, the doctor says, has none of the physiological action of theine, and may be enjoyed in all its delicacy and refreshing coolness at any time during the evening with impunity.

DR. CARLOS MACDONALD, Chairman of the Medical Commission of Experts to the Kemmler execution, reports to Governor Hill in favor of the new law, but recommends certain amendments to render it more effective. Among other changes a single plant is recommended, located in the center of the state, where all executions should take place, and where the apparatus should be of such improved construction as to secure certainty in its work. The amendment suggested will undoubtedly be adopted.

BIBLIOGRAPHICAL.

A TEXT-BOOK OF COMPARATIVE PHYSIOLOGY FOR STUDENTS AND PRACTITIONERS OF COMPARATIVE (VETERINARY) MEDICINE. By Wesley Mills, M. A., M. D., D. V. S., Professor of Physiology in the Faculty of Human Medicine and the Faculty of Comparative Medicine and Veterinary Science of McGill University, Montreal; Author of a Text-book of Animal Physiology, etc., with 476 illustrations. New York: D. Appleton & Co., 1890, pp. 636, 8vo.

The author says in his preface that "the time has certainly come when medicine must leave the narrow ruts within which it has been confined, and become essentially comparative. . . Unless the student is infused with the broad comparative spirit in the earliest years of his studies, and guided accordingly, there is no sure guarantee of final success in the widest sense," and it is to hasten this end that the author has been inspired to write. The work is certainly worthy a place as a text-book.

ESSENTIALS OF DISEASES OF CHILDREN. Illustrated. By William M. Powell, M. D., Physician to the Clinic for the Diseases of Children in the Hospital of the University of Pennsylvania; Examining Physician to the Children's Seashore House for Invalid Children, at Atlantic City, N. J.; formerly Instructor in Physical Diagnosis in the Medical Department of the University of Pennsylvania, and Chief of the Medical Clinic of the Philadelphia Polyclinic. Arranged in the form of Questions and Answers, prepared especially for Students of Medicine, and admirably answer their purpose. Philadelphia: W. B. Saunders, 1890.

IRREGULARITIES OF THE TEETH AND THEIR TREATMENT. By Eugene S. Talbot, M. D., D. D. S., Professor of Dental Surgery in the Woman's Medical College; Lecturer on Dental Pathology and Surgery in Rush Medical College, Chicago. Second Edition. Revised and enlarged, with 234 illustrations, of which 169 are original. Philadelphia: P. Blakiston, Son & Co. 1890, pp. 261, 8vo.

This is the most exhaustive work upon the subject of which it treats, with which we are familiar. Such of our readers as are interested in the subject will be glad to have the book, we are confident.

STRICTURE OF THE RECTUM: A STUDY OF NINETY-SIX CASES. By Charles B. Kelsey, M. D., Professor of Diseases of the Rectum at the N. Y. Post-Graduate School and Hospital; late Professor of Rectal Surgery at the University of Vermont, etc., etc.

A most interesting study upon an important subject, illustrated with large clinical experience.

OPERATIVE GYNECOLOGY. By Andrew Jackson Howe, A. M., M. D., Professor of Surgery in the Eclectic Medical Institute, etc. Published by Robert Clarke & Co., Cincinnati.

It has been the aim of the author to condense the material at command and not to be diffuse. While condemning the too frequent use of mysterious expressions which have found a place in the literature of this comparatively new branch of medical science, he has taken the liberty of coining a word to take the place of laparotomy, which simply means the laying open of the flanks, and does not well apply to opening the abdomen in the median line, but his term, *Abdominotomy*, expresses just what it means. Cleanliness he considers the best aseptic, listerism and cor-

rosive sublimate are considered irritating and poisonous. The contribution to ectopic pregnancy is in accord with the latest views upon the subject, and are largely those of Lawson Tait, the best authority upon extra-uterine pregnancy. He argues largely from observation and experience, and contends that ectopic fixations of the germ are tubal at the start, and not peritoneal or abdominal.

Upon the whole the little work will be found quite satisfactory as a ready reference, some of the therapeutic hints being practically useful.

A. T. H.

THE DECLINE OF MANHOOD, ITS CAUSES, THE BEST MEANS OF PREVENTING THEIR EFFECTS AND BRINGING ABOUT A RESTORATION TO HEALTH. By Alvin E. Small, A. M., M. D., late President of Hahnemann Medical College and Hospital, Chicago. Fourth Edition. Revised and Enlarged. Gross and Delbridge, 1890, pp. 100, 12mo.

This book must have met a demand, or a fourth edition would not be called for, and it is worthy the place it has found. It is the result of a large experience, and is written upon a high plane of thought.

SAUNDER'S QUESTION COMPENDS. Essentials of Practice of Medicine. By Henry Morris, M. D. Philadelphia: W. B. Saunders, 1890.

In his preface the author says the volume is intended as an aid to the advanced student of medicine who is preparing for his degree, or to the young practitioner in diagnosing affections or selecting the remedy for them. The etiology and diagnosis are so clearly and concisely given that the work will find its way into the library of the general practitioner for an almost daily ready reference. The volume concludes with a short but very excellent treatise on the examination of urine, chemical and microscopical, for clinical purposes, arranged in the form of questions and answers, by Lawrence Wolf, M. D.

EPILEPSY, ITS PATHOLOGY AND TREATMENT. By Hobart Amory Hare, M. D., B. Sc. Philadelphia: F. A. Davis, Publisher.

This essay on epilepsy received the four thousand franc prize awarded by the Academy of Medicine of Belgium for the best essay on the subject. The author has evidently reviewed the literature of the world upon a disease which has been the *bête noir* of the profession for centuries, and has separated much of the good material in literature from a vast mass of superstition and nonsense.

ON OINTMENTS AND OLEATES, ESPECIALLY IN DISEASES OF THE SKIN. By John V. Shoemaker, A. M., M. D. Second Edition, Revised and Enlarged. Philadelphia: F. A. Davis, Publisher, 1890.

This admirable treatise has evidently been prepared with great care, and embraces a consensus of the whole subject of inunction as it exists to-day in the civilized world. In all cases the mode of preparation is given and the therapeutical application described *seriatim*, in so far as may be done without needless repetition.

PHYSICAL DIAGNOSIS AND PRACTICAL URINALYSIS. An Epitome of the Physical Signs of the Heart, Lung, Kidney and Spleen in Health and Disease. Edited by John E. Clark, M. D., Professor of General Chemistry and Physics in the Detroit College of Medicine. Forty-one Illustrations. Cloth, 12mo, 200 pages; price, post-paid, \$1.00. Illustrated Medical Journal Co., Publishers, Detroit, Mich.

In the arrangement of this work the object has been to present to the medical student and practitioner a system-

atic and condensed course of Physical Diagnosis and Urinalysis. The portion on Urinalysis will be found to consist of two parts, practical and reference. The editor believes there is a demand, in many medical schools and by many medical students, for a short, definite course of organic chemistry, touching alone on subjects of every-day interest. To meet these requirements the work has been compiled. Teachers in the laboratory will find the work of advantage as giving the plan for definite instruction with such manipulatory details as will enable students to pursue the course of urine analysis with the minimum of assistance.

A DICTIONARY OF PRACTICAL MEDICINE, by Various Writers. Edited by James Kingston Fowler, A. M., M. D. Philadelphia: D. Blackiston, Son & Co., 1890.

The work is constructed somewhat upon the plan of Quain, and presents in short articles from some of the ablest English specialists, a concise account of the more important subjects comprised under the head of Practical Medicine, including also the diseases peculiar to women. Each article concludes with the treatment of the disease and the exact dose of the various drugs recommended.

THE TENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH is full of the work of a scientific and practical organization in a progressive work for the public health. This great central power, through the 1,400 local organizations scattered throughout the State over which it exercises supervision, has its fingers upon the sanitary pulse of the entire State, and to its watchful care, its wise use of vested power, we are indebted for an abatement of many of those sources of disease which would otherwise be permitted to contaminate the air. The monthly bulletin present at a glance the mortality and cause in every part of the State, and are very important for reference.

"A Criticism of Willitt's Operation for Talipes Calcaeus," By A. B. Judson, M. D.

"The Prevention of the Short Leg of Hip Disease with the After Treatment." By A. B. Judson, New York.

OBITUARY.

At the Hospital for the Insane, Washington, D. C., one of the physicians of the hospital, Samuel Robert Means, Ph.G., M. D., died August 1st, 1890, aged twenty-five years. Dr. Means, after graduating at the head of his class at the National Medical College of the Columbian University in 1889, accepted a position in the Children's Hospital, which he resigned in June, 1889, to accept a still more responsible one in the Government Hospital for the Insane, Washington. The following graceful tribute to the memory of the young man in a letter to his parents by Dr. Godding, Superintendent of the Hospital, speaks feelingly of those qualities of heart and mind so full of promise in the future: "Dr. Means was ambitious to succeed, but with an ambition which stooped to nothing ignoble; kind-hearted and tender as a woman, he was dear to all his associates. We have lost a good man; high-minded, conscientious, good in that higher sense, that unostentatious following of his Master, that he gave his life with its best energies for the welfare of his fellow-man. Such lives are beautiful here, and they leave us desolate with their early ending. Oh! we know but in part it is not the end.

"What to shut eyes has God revealed?

What hear the ears that death has sealed?

What undreamed beauty, passing show,

Requites the loss of all we know?"

CORRESPONDENCE.

"HOMŒOPATHIC PSYCHIATRY."

To the Editors of the NEW YORK MEDICAL TIMES:

The Chicago *Medical Standard* for last August contains the following editorial item:

"The Illinois homœopaths are seeking to gain control of any State insane hospital which may be created. They should therefore demonstrate that homœopathic medicinal treatment of insanity is of value. This it will be difficult to do, since there is extant a series of lectures on insanity delivered by a homœopathic alienist, Dr. Worcester, to the students of homœopathy at the Boston University. In this series . . . Dr. Worcester states: 'There are two or three agents used by the Old School whose use you will do well to bear in mind, not only for your patients' sake, but because you will not want your patients to pass into another physician's hands.'

These agents are morphine in half-grain doses, chloral hydrate in thirty grain doses, conium, potassium bromide and most of the neurotics [sic] used by physicians in rather greater doses than usual. Judging by developments in the Ward's Island Homœopathic Hospital, which has an insane department, Dr. Worcester's principles are followed there. Any insane hospital falling under homœopathic control would be conducted in just such a fashion, and hence under false pretences. With this candid statement ament homœopathic psychiatry by Dr. Worcester, claim for recognition in insane hospitals by homœopaths becomes an absurdity."

It does, eh? The editor of the *Standard* has, of course, never heard of the State Hospital for Insane at Middletown, N. Y. He is not aware of the fact, repeatedly affirmed by the Superintendent in his annual reports, that none of the Old School agents mentioned above is ever employed in the said institution, but only medicines carefully selected according to the law of similars, by an assistant physician who attends solely to that department of treatment. And he does not know, although it has been published far and wide, both by the lay and medical press, that the death-rate in that State asylum is lower, and the percentage of recoveries higher than in any other asylum in the world; nevertheless, all these things are true, and the inevitable conclusion to which they point is, either that Selden H. Talcott and his coadjutors—without any real aid from drugs—have surpassed all other alienists in what the *Standard* man would call the "rational treatment" of insanity, or else that "homœopathic psychiatry" is very far indeed from being either a delusion or a fraud. When more insane hospitals have "fallen under homœopathic control"—as undoubtedly they very soon will—we shall be able to decide between these alternatives.

Meantime, that mendacious charge of "false pretences" will only recoil upon the blinded bigots who resort to it.

G. L. FREEMAN.

[There has been no insane department in the Ward's Island Hospital for a long time, and when there was one, it was filled with the demented and incurable who seldom needed or received drugs of any kind.—Eds.]

INVESTIGATION OF DRUGS.

ALTHOUGH it has become the fashion, says Dr. Percy Wilde—from whom we shall quote at length—of late years to disparage the work of the therapeutician and to call attention to the shortcomings of our remedial resources, the scientific investigation of drugs, both old and new, has never been more actively pursued.

It is easy to criticise individual experiments and contest their practical value, but it is to the accumulated results that we must look to the solution of those difficulties which may at present ap-

pear insuperable. In theory it may appear a very simple matter to discover by experiments on animals the particular nerve centers upon which drugs act and to determine whether they stimulate, irritate, or depress, and it may not appear difficult to put this information to practical account in the treatment of disease; but as a matter of fact, we know very little about the nerve centers which are initially concerned in the production of the commonest ailments.

We can recognize and prescribe the symptoms produced by drugs on the animal or the human economy, but when we attempt a precise physiological interpretation of their action, the facts on which an accurate localization depends are not attainable.

We know, for instance, that certain drugs which we call cholagogues increase the evacuation of bile, clinical experience leaves us no doubt on this question; but when we endeavor to study their action further, by experiments, on animals, the results hardly accord with our previous knowledge.

Most elaborate experiments have been recently made by Prof. J. T. Prevost and Dr. Paul Binet, on dogs, with the object of determining the precise action of various drugs on the biliary secretion.

The result of these experiments is to show that the secretion of bile may either be stimulated or arrested as follows:

Substances which distinctly increase the biliary secretion: Oil of turpentine and its derivatives: terpinol and terpine, chlorate of potassium, benzoate and salicylate of sodium, salol, euonymin, muscarine [subcutaneous injection]. Substances which decrease the excretion of bile: Iodide of potassium, calomel, which, in the absence of bile in the intestine, colors the stools green. Iron and copper [in subcutaneous injection], atropine [in subcutaneous injection], strychnine [in toxic doses].

The natural inference from these experiments is, that the practitioner may employ oil of turpentine when he wishes to use a cholagogue, and accept it as a fact that calomel is contra-indicated when the secretion of bile is deficient.

But the results do not justify this conclusion, they only prove that calomel, given to dogs, in a certain dose, and under certain conditions, diminishes the secretion of bile; but as to its action upon the human body, either in health or disease, they prove nothing.

Such investigations have a negative value, and teach us the difficulty of establishing therapeutics on a direct physiological basis. But just as the search for the philosopher's stone led to the enunciation of the principles on which the science of chemistry is constructed, so we are likely from the mass of data which has recently been collected, to obtain some broad principles as to the nature of drug action.

It is to this study that the attention of therapeuticians is at present directed, and Dr. Boardman Reed, in the *Practitioner*, has put forward, in a very able and lucid manner, some of those general principles which, although they have not escaped the attention of previous observers, are as yet not fully accepted as a scientific method for the study of drugs, and for their practical application in the treatment of disease.

Dr. Reed takes as his text a passage from Prof. Stillé's well-known work on "Therapeutics and Materia Medica," in which the author makes the following generalization: "There is also a primary and a secondary operation of medicines. Sometimes one, sometimes the other, is curative. All medicinal stimulants are useful by their primary operation alone, and indeed the depression which ensues tends to impair the advantages of the original stimulation." In the same connection he was careful to add that "primary sedatives seldom exert a secondary stimulant operation; indeed cold is the only one that has this effect, and only when it is applied in a certain degree." Commenting upon this latter clause, Dr. Reed says, "A careful study of the sedative medicines, since made, has revealed the fact that many of them certainly, all indeed that I have been able to study with any thoroughness, have, even in moderate and sometimes in full doses, a more or less marked primary stimulant action, and when they are administered in quite small doses for a short time only, this stimulant action does not appear to be followed by depression or sedation. It may be, therefore, that Prof. Stillé's generalization did not go quite far enough, and that there are NO PRIMARY SEDATIVES."

This point Dr. Reed proceeds to illustrate by reference to experiments made by himself and others with a number of well-known drugs. He quotes the following conclusions arrived at by Prof. Schultz and Dr. Pfeiffer, based on a series of pharmacological experiments conducted by them in the Pharmacological Institute of the University of Greifswald: "In the case of all nerve-paralyzing substances we have as a preliminary to their (proper) action at first a kind of excitation, which precedes the paralysis and more or less rapidly passes into it. We need only recall the well-known fact that morphine, before it exerts its soporific power on the brain, in most cases causes a peculiar mental excitation." The same experimenters also found that the hydrobromate of conine primarily stimulated the very parts it afterwards paralyzed.

Dr. Reed also points out as a fact well known to all competent pharmacologists "that quinine, which is a powerful stimulant tonic in small or moderate doses, not too long continued, is markedly depressing in doses of one or more drachms; and that such medium doses as fifteen to twenty grains, after first stimulating, may secondarily

exert a sedative effect." The same, he also says, "is confessedly true of alcohol." Electricity too, "a notable example of direct and powerful stimulants," has been conclusively proved by Dr. Poole, of Toronto, to be "a paralyzing agent." "The ultimate effect" of the carbonate and dilute solution of ammonia, though in constant use as "cardiac stimulants," he shows, on the authority of Brunton, Harnack and Bartholow, "to be depressing." Camphor is another illustration of "a valuable stimulant," which, when "pressed too far, can powerfully depress." His authorities here are Brunton, Horatio Wood and Dr. Charles Phillips. He quotes the last as saying, when summing up the effects of camphor, "On the whole it is probable that the drug possesses the apparently conflicting attributes of acting as a sedative and as a stimulant, the predominance of either effect depending upon dose and occasion."

Any explanation of the fact that all stimulants tend to depress, Dr. Reed does not attempt, contenting himself with stating that, when pharmacologists have endeavored to form an explanation, they "have accounted for the depressing effect of large doses of stimulants, as well as the similar ultimate effect of repeated small doses of the same, as the result of over-stimulation—i. e., over-functional activity." This may be defined as an explanation in which nothing is explained. "Obviously, however," writes Dr. Reed, "it is first of all important to establish, beyond question, exactly what drugs can do in their different doses. Afterward, it may be worth while to busy ourselves with the yet more difficult problem of explaining why they do it." Having examined the question of the double action of so-called stimulants, Dr. Reed proceeds to enquire into the properties of presumed sedatives.

He first calls the well-known paralyzer, conium, to show that it is primarily a stimulant. This he does by resorting to clinical evidence. Thus he quotes Dr. John Harley as saying that "in repressing and removing irritative excitement of the motor centres, conium is a TONIC to those parts of the nervous system which requires its use." Then again Prof. Stillé has said, "The continued use of the medicine seems to exert a tonic operation." While Damourette, Pelvet, Schultz and Peiffer have, in the laboratory, proved that it develops a step of excitation before the paresis appears.

It is certainly both singular and suggestive to hear so notorious a paralyzer as conium spoken of as a "tonic," and to find that, when given in small doses in states of nerve depression, very like indeed those to which it gives rise itself, it acts curatively. How far these conclusions are correct is simply a question of experience, and to provide this opportunities are innumerable.

Of curare, after quoting the observations of Couty and others, Dr. Reed says, "there can be no doubt, therefore, that moderate doses of curare—probably also even large ones at first—produce a stimulation of the muscles."

In resuming his subject in the following number of *The Practitioner*, Dr. Reed interrogates the veratrum preparations. "All observers," he states, "concur in bearing witness to the fact that veratrine in small and even in moderate doses stimulates muscular tissues, producing a peculiar spasmodic action in it, while it ultimately paralyzes the muscles themselves by a direct action." So, too, veratroidine, as Bruton says, "stimulates the vagus centre and paralyzes the vagus ends. It depresses the spinal cord, and paralyzes the respiratory centre, but increases the excitability of the vaso-motor centre."

Aconite furnishes another illustration of the same fact, and opium an additional one. Moderate doses, Dr. Reed says, constipate; very large ones, purge; and, he adds, "If the fact were more generally known that the opiates pushed too long, may finally exert a laxative action, the mortality among children from enterocolitis would be greatly diminished." Finally, ether and chloroform—representative anaesthetics—are, particularly the former, well known stimulants; the nature of the action involved by each being dependent on the dose.

Having given the foregoing selection of facts, Dr. Reed proceeds to state the general conclusions which flow from them: Drugs vaguely classed as stimulants and sedatives are, he considers, all capable of exciting in different doses both stimulant and sedative effects. The action of these two classes of drugs he describes as follows:

(1.) "A relatively small dose always at first stimulates the parts which the drug specially affects."

(2.) "A sufficiently large dose always finally paralyzes the parts which the drug specially affects."

(3.) "A moderate or medium dose may first stimulate and afterward depress, finally paralyzing if repeated often enough."

"The same principle," he continues, "doubtless hold good with regard to the other drugs imperfectly classified according to some of the most conspicuous effects of their physiological doses, as emetics, purgatives, expectorants, diuretics, etc., or still more irrationally classed from some of their small-dose effects as alteratives. At all events, so far as my investigations have gone, there is always to be found a relatively small dose which will produce an effect opposite to that of the toxic dose. This is notably true of the purgatives, two of which, castor oil and rhubarb, have long been used both by the profession and in domestic practice, for the cure of diarrhoea. If we would study carefully the peculiarities of the

other medicines whose physiological effect is to purge, we might greatly add to our present power over obstinate and especially chronic fluxes from the bowels."

He then points out that these views are not new, and refers to Bartholow as one who has recognized them, the Burness and Mavor's book, "On the Specific Action of Drugs on the Healthy System," published in 1874, to Dr. Sharp's "Antipraxy," and to Dr. Lauder Brunton's "Pharmacology."

To prove that the opposite character of the primary and secondary actions of drugs is a doctrine capable of being turned to practical account at the bedside, Dr. Reed gives the details of a severe case of typhoid, followed by a relapse. The diarrhoea was extreme, and persisted in spite of "the usual astringents, bismuth, opium, and even lead. . . . Other astringents were tried in the hope of checking the exceedingly profuse diarrhoea which was fast exhausting the patient, but without avail." Dr. Reed now prescribed podophyllin. He did so because he "remembered that podophyllin especially affects the small intestine, the part in which the most characteristic pathological changes are found in enteric fever, and since Dr. Anstie's experiments, quoted by Prof. Ringer, showed that the drug, in large doses, caused intense congestion and even ulceration of the small intestines, it was believed that a suitable dose should exert an opposite or restorative action on the same part." He administered 1-120th of a grain of podophyllin with a little sugar every third hour. In twenty-four hours the diarrhoea had almost entirely ceased, and during the same time the temperature fell two degrees.

After the temperature had been normal for a week, a relapse occurred and it rose the day after to 105.4. There were again frequent involuntary stools, with yet more profound adynamia, as well as delirium and stupor.

Podophyllin was again tried, in the same doses, and failed. "We then," he continues, "resorted to Fowler's solution in doses of one-eighth of a drop every two hours. Since arsenic, in full doses, produces a violent choleraic condition, probably by paralysis of the vaso-motor nerve supplying the stomach and intestinal tract, it was reasoned that small doses should exert an opposite, *i. e.*, a tonic or restorative action upon the same tract. The effect was as prompt and satisfactory as had been that of the podophyllin in the former attack."

It would be useless to waste time in discussing in the abstract whether Dr. Reed's views represent a whole or only a partial truth, clinical experience is the *only* test, and the illustrations which he gives, together with those with which recent medical literature abounds, are of more value than pages of theoretical reasoning.

The question is one of great practical import-

ance for, if Dr. Reed's conclusions are correct, it opens a way of overcoming the great obstacle to therapeutic advance. It renders it unnecessary that we should wait until we know the exact nerve centres which arsenic and podophyllin depress, to cause diarrhoea, before we make use of them for its cure, all that is necessary is, that we should know by clinical observation the precise form of diarrhoea which each produces, together with their general effects on the patient, and it follows that a small dose will cure that form which most closely resembles the toxic effects of the drug.

Some discussion has arisen as to the priority of discovery of this principle. This is not a matter of great importance. It was undoubtedly first arrived at by induction from physiological experiment, by Claude Bernard, who put it as an axiom that "every substance which in large doses abolishes the property of an organic element stimulates it when given in small ones." The great physiologist also declared that "all causes which exhaust the vital properties of a tissue or of an organic element commence by exciting them."

By deduction this principle appears to have been noticed by Hippocrates ["Works of Hippocrates," Syd. Soc., 1849, vol. 1, p. 77]. An essay entitled "Suggestions for Ascertaining the Curative Powers of Drugs," which appeared in *Hufeland's Journal* for 1796, contains some passages which so nearly approaches Dr. Reed's views that it may be of interest to quote them, especially as they were written at a time when the crudest ideas prevailed in respect both to pathology and physiology and the primary and secondary reactions of nerve centres to stimuli was known.

"Most medicines have more than one action. The first a direct action—which gradually changes into the second—which I call the indirect secondary action; the latter is generally a state exactly the opposite of the former. In this way most vegetable substances act.

"If in a case of chronic disease, a medicine be given whose primary action corresponds to the disease, the indirect secondary action is sometimes exactly the state of body sought to be brought about. But sometimes—especially when a wrong dose has been given—there occurs in the secondary action a derangement for some hours, seldom days. A somewhat too large dose of henbane is apt to cause in its secondary action, great fearfulness, a derangement that sometimes lasts several hours. If it is troublesome, and we wish to diminish its duration, a small dose of opium affords specifically almost immediate relief. The fear goes off.

"Opium in this case acts only antagonistically and as a palliative. But only a palliative and temporary remedy is required in order to suppress effectually a transitory affection, as is also the case in acute diseases. As it may be almost con-

sidered an axiom that the symptoms of the secondary action are the exact opposite of those of the direct action, it is allowable for a master of the art, when the knowledge of the symptoms of the direct action is imperfect, to supply in imagination the lucanae by induction, i. e., the opposite of the symptoms of the secondary action. The result, however, must only be considered as an addition to, not as the basis of, his conclusions."

Dr. Reed will perhaps be surprised to find himself so long forestalled in his conclusions; but as he does not claim them as new, he will probably be pleased with the additional confirmation thus afforded.

TRANSLATIONS, GLEANINGS, ETC.

RETROSPECTIVE THERAPEUTICS.

BY ALFRED K. HILLS.

Carbolic Acid in the Treatment of Tetanus.—Dr. Francesco Paylini, in *Riforma Medica*, No. 9, recommends subcutaneous injections of carbolic acid in treatment of tetanus. He cites the case of a boy, aged fifteen, who developed severe tetanus after a contused wound of the foot in the interdigital fold between the fourth and fifth toes. There were present trismus, opisthotonos and tonic rigidity of the abdominal muscles. Warm baths and large doses of chloral had no effect upon the intensity and frequency of the attacks, the temperature rising up to 40° C. On the fourth day from the commencement of the disease, subcutaneous injections of a one per cent. solution of carbolic acid were resorted to at intervals of three hours during the first four days. As early as the second day a fall of temperature and diminution of the severity and duration of the paroxysms were observed. As the patient improved, the number of injections was gradually decreased, but the treatment was kept up until the thirty-seventh day, when the trismus and rigidity of the abdominal muscles had completely disappeared. Recently a severe case of tetanus was treated successfully in a similar manner in Bacelli's clinic at Rome.

Chrysophanic Acid in Acne.—Dr. Metcalf (*Kansas City Med. Record*) highly recommends this agent in acne. He says he has not failed to cure perfectly any case in which the treatment has been adopted. The face is to be washed with soap and well dried, at night. Before retiring, the parts in which the acne is are to be well rubbed with an ointment of three grains of the acid to the ounce of vaseline, and this is repeated nightly until a sharp inflammation of the skin ensues. The inunction is then omitted until the dermatitis is gone, when it is repeated. In most cases a three-grain ointment is of sufficient strength, but occasionally the strength is to be increased up to five grains to the ounce, or even more. The patients are to be cautioned about the staining of their fingers and clothes and to guard their eyes.

Chloral for Cracked Nipples.—Dr. Ivan A. Mitropolski, Moscow, recommends chloral in the treatment of fissured and excoriated nipples. The latter should be kept covered with compresses (soft linen) soaked in a solution of half a drachm of chloral in three ounces of water. The compresses should be changed every two and a half or three hours. When a prolonged application is necessary, it is advisable to use a weaker solution (one-half drachm to six ounces). The solution leaves a thin, whitish, firmly-adherent film over the diseased surface, which does not

disappear by suckling. Pain and tenderness are said to be strikingly relieved almost immediately, the lesions rapidly healing. Chloral compresses do not have bad effects on nurslings.

The Use of Coffee in Fermentative Dyspepsia.—Dr. E. C. Seguin (*N. Y. Med. Jour.*) says: If there is one direction more often and more emphatically given to dyspeptic people, it is to drink no coffee or tea. In some way the use of tea and coffee has come to be looked upon as highly injurious to digestion by the laity and physicians. Yet I believe that there never was a greater medical delusion. It may have originated from the fact, which I recognize, that the abuse of very hot drinks (tea, coffee, and I would say soups also) may give rise to chronic gastritis. The chief reason, however,—very good so far as it goes—is that dyspeptic persons feel worse after taking what is called coffee at breakfast. Some eight or ten years ago I began to suspect that the reason why breakfast coffee disagreed was because its composition made it a liquid favorable to fermentation. The cup of coffee which almost every one takes at breakfast and tea at breakfast or lunch is a mixture of coffee, ridiculously weak usually, milk or cream, and sugar. This "cup of coffee" is unquestionably bad for dyspeptics, and perhaps not over digestible for any one. After my return from Europe in 1883, I began giving dyspeptic patients good strong coffee, without milk, cream or sugar, with their breakfast of meat or eggs, and very little bread (no other farinaceous food, of course). It was at first difficult to induce patients to make the trial, as they were so prejudiced by former medical statements that coffee was bad for their digestion and for their "nerves." The results were extremely gratifying, and I have made it a part of my diet *régime* for all persons suffering from evident fermentative dyspepsia, with or without catarrh, and from so-called nervous dyspepsia. I direct that they shall take one large breakfast-cup of strong dark-brown coffee, made without boiling, not too hot, without sugar, cream or milk, with their breakfast. In cases where nervous prostration and early morning depression are marked, I order, in addition, a small cup of the same coffee, with a two-grain pill of quinine, before rising and attempting to dress. I have induced two or three of my professional friends to try this revolutionary practice, and they are so far satisfied with the results.

Why should not plain infusion of coffee be beneficial to dyspeptic, nervous, worn-out subjects? It contains no element of fermentation, and if made without boiling, hardly any tannin. We introduce into the patient's stomach so much hot water (which is well known to be favorable to digestion), plus a certain quantity of caffeine. Now, caffeine is a cardiac tonic, an exhilarant, and a diuretic—three properties which meet indications presented by these patients—viz., feeble, irregular cardiac action, nervous and mental depression, insufficient renal action. In this lies the advantage of coffee infusion; it stimulates the heart and kidneys. . . . What are the objections to coffee? It may cause so much cerebral excitement as to postpone or banish sleep; but this objection does not hold against coffee at the beginning of the day. It causes tremor, or, popularly speaking, "nervousness" in some persons; but this, I think, is rare, and is usually caused by the use of excessively strong coffee. Caffeine and coffee have, in the last ten years, assumed a justly prominent place in our list of potent physiological remedies. I can and do urge you to make a trial of black coffee in your dyspeptic and nervous cases. In some instances the effect of the very early cup of coffee is wonderful; the quasi-melancholia passes off; the patient rises, takes her cold sponge-bath and dresses with comparative ease, and comes down to breakfast with some energy and ambition.

Chloroform in the Albuminuria of Pregnancy.—Dr. A. W. Griggs, of West Point, Ga., states (*N. Y. Med. Journal*) that he is in the habit of administering chloroform in doses

of from twelve to twenty drops in sweetened water, four times daily, in cases of pregnant women in whose urine there is a great amount of albumen, and who have general anasarca. The result is almost invariably a marked diminution of the albumen and subsidence of the anasarca. He also believes that the occurrence of puerperal eclampsia is prevented. This practice is said to have originated with Dr. V. M. Miller, of Atlanta, twenty-five years ago.

Sunlight for Hydrocephalus.—Dr. Rodionoff mentions in the *Meditsinskoe Obozrenie* a somewhat remarkable case of recovery from chronic hydrocephalus in a child of eleven months old. The mother took good care of it until it was two years old, and then left it to itself. It was thus exposed to a hot sun for many weeks, and, strange to say, a year later the size of the head had diminished, and the child was able to creep about. When it was four years old the hydrocephalus had disappeared, and the child was able to talk. Dr. Rodionoff seems disposed to refer the cure to the action of the sun's rays.

Trichloroacetic Acid in Affections of the Nose and Throat.—The many disadvantages which attend the use of chromic acid in applications to the nose and throat have led Dr. Ehrmann, assistant at the Heidelberg Laryngological Clinic, to substitute for it trichloroacetic acid, originally recommended by Dr. Stein, of Moscow (*Wien. Med. Blätter*, March 20, 1890).

Trichloroacetic acid (CCL COOH) occurs in the form of colorless, transparent, rhomboidal crystals of slightly penetrating odor, strongly caustic, soluble in water and alcohol, and rapidly becoming fluid when exposed to the air. The crystals melt at 53°C . and boil at 195° , with the production of a strongly irritating, aromatic vapor, and entirely evaporating without leaving any residue. Dr. Ehrmann's experience embraces one hundred and seventy cases, in one hundred and forty of which the trichloroacetic acid was used as a caustic. His method of application consists in applying a moist crystal of this acid by means of a silver probe and rubbing it over the part which it is desired to cauterize. At first he employed an ordinary silver probe, later on he made use of a silver sound, of which the head was hollowed out in front, thus forming a cup-shaped extremity, in which a smaller or larger number of crystals might be placed. By this means accidental cauterization of healthy parts may be avoided. When the cautery was applied to the nasal mucous membrane, a ten per cent. solution of cocaine was first used to deaden sensibility, immediately after the application of this cautery a bright, ivory-white scab is formed, which remains absolutely localized to the point of application of the cautery. It differs from the slough produced by chromic acid, in that it is uniformly thick, is inodorous, produces no unsatisfactory action, and leaves no unpleasant after-effects. In this latter effect it is preferable to the galvanic cautery. The effects of the cauterization usually disappear within five or six days. The procedure may, if necessary, be repeated. It is especially worthy of note that in no case did its employment ever produce any secondary hemorrhage, and, in fact, in three cases it was used with success as a hemostatic.

When cocaine has been used, no pain, with the exception of a slight burning, which passes off in a few minutes, is ever complained of.

In the mouth and pharynx no symptoms were ever produced, or were quite trifling, even although cocaine was not used. The application was, in fact, almost painless, with the exception of a slight burning. No vomiting, coughing, or difficulty of swallowing was observed. The cases in which Dr. Ehrmann employed this substance as a caustic were of the most diverse nature, and of the one hundred and forty, in eighty-seven cauterization was employed once, in thirty twice, and in the other cases from three to five times.

The author notes further that two or three applications are usually quite sufficient to reduce the highest degree of

hypertrophy of the turbinated bone. Of these one hundred and forty cases, only eleven did not return for treatment. Of the other one hundred and twenty-nine, in one hundred and twenty-two complete cures were attained.

The author therefore recommends in the most emphatic manner the use of trichloroacetic acid as a local caustic for the nose and pharynx.

Static Electricity in General Practice.—Dr. A. Graydon (*Jour. Am. Med. Association*), says:

1. Static electricity is a safe and reliable agent in the general practice of medicine. I do not mean to say that its reliability is of such a nature that its environments are to be neglected. For example, the office in which the instrument stands must not have any dampness about it. That state of perfection has not yet been reached that will give a static current at all times in an office so damp that the paper will not stick to its walls. A wooden case can hardly be made which will not absorb some moisture in an atmosphere like that. In placing a machine, I should see that there was no wet cellar under it, if the office be on the first floor; when the room is on the second it is not so material.

2. This treatment can be applied pleasantly and with benefit to the patients, and at times when the galvanic and faradic can not be used.

3. In static insulation we get results only obtainable from "general galvanization," without the expense of time, trouble and exposure—and frequently, too, after both these forms have failed.

4. In many forms of pain prompt and permanent relief follows its application, such is unequalled by other agents.

5. As a tonic in systems overwrought, overdrawn, mental grip slipping away, it performs a very important part. The readiness with which it can be applied, and the good results obtainable, prompt me to make use of its properties frequently.

6. In various forms of headaches its effects are uniformly good. It is a common remark to hear from patients, "I can feel the pain being lifted, the heaviness going," or similar expressions indicative of appreciable relief.

7. In the treatment of insomnia the use of the douche is effective, a feeling of drowsiness making itself felt during the application.

8. In treatment about the head I have found a difference in the effect between the positive and negative poles, not elsewhere.

9. The benefit of the faradic current is obtained from the static inducer.

10. Growth of hair, I have observed, has been promoted, and the falling out of it stopped in some of my cases of head pain.

Dr. Carpenter and Dr. Ranney both report remarkable changes in the appearance of the so-called "ivory spots," or alopecia areata.

Pulque in Hydrophobia.—In a Peruvian journal, *La Crónica Médica*, Dr. Pablo Patron relates the case of a boy who had been bitten by a rabid dog. Although the wounds were antiseptically treated, the boy began to show signs of hydrophobia. One day he escaped into the fields, where he gathered leaves of the American aloe (*agave Americana*) and sucked them. Subsequently the boy recovered from the disease and the agave gets credit for the cure. *Agave Americana* not being readily obtainable in this country, it is suggested in *Chemist and Druggist*, that any one under the painful necessity of requiring treatment of this kind might try pulque, which is the juice of the *agave Americana* slightly fermented. Pulque is readily obtainable.

Fallacies Concerning Syphilis.—In a recent number of the "Physicians Leisure Library," on *Some Fallacies Concerning Syphilis*, Prof. E. L. Keyes says, among other startling things, that the hot springs of Arkansas have no special effect in modifying the syphilitic poison, or shortening

the duration of the disease. If then it be asked, "What is the real value of the springs?" Dr. Keyes replies, "I think it is this: That by reason of the diuretic and diaphoretic action of the water, a patient properly managed may take at the springs vastly more mercury and iodide of potash, without being either salivated or iodized, than he can at any other spot on the face of the earth, and thus the medicines, not the springs directly, cure him."

Dr. Keyes quotes from one medical gentleman "of very high position and experience," who gave it as his opinion that there was really nothing of value in the springs, "That the hot water was like any other hot water and that the reason why patients, as a rule, did better in regard to their symptoms at the springs than at home, was because they came to the springs frightened and determined to make a serious effort to throw off their malady; therefore, they obeyed instructions, took their medicines as ordered, gave up tobacco and alcohol, took a proper diet and exercise, rested their nerves and kept proper hours. If the same patients would do the same things, including the use of common hot water, at home, they would do equally well as at the springs."

Dr. Keyes regards iodide of potassium as useful only in the tertiary stage of the disease, when the "deep structures, like the bones and nervous system, have become involved; then the iodides are the chief resource for the absorption of syphilitic deposits or the cure of specific changes in structure, and they must be given in large doses; otherwise "The iodides are:

- "1. Not as useful in opposing syphilis as mercury.
- "2. More likely to do harm.
- "3. And it is squandering our resources to appeal to iodides for help in a great majority of cases of syphilis during the earlier months say, perhaps, the first year of the disease."

The Mnemonics of Electrical Terms.—W. E. Forest, M. D. (*Med. Record*), gives the following illustration that he has found useful in fixing the meaning of electrical terms, which the general practitioner may find difficulty at times in recalling to mind. To the non-medical mind the formula, he remarks, might seem vulgar, but in science there is nothing unclean. The term *volt* is a common one in electricity. It means the unit of measure of electric force or power, or, we might say, pressure. Thus we say a battery giving so many volts is necessary to run an electric light or kill a dog.

We may represent the voltage by the contractile power of a male bladder.

The term *ohm* is the unit of measure of resistance to the passage of an electric current. The ohm or ohmage may be represented, then, by the calibre of the urethra attached to this bladder; or, a still better illustration to the medical mind, a stricture in that urethra (a not uncommon condition of the male urethra).

The term *ampere*, or milliamperes (the latter meaning the thousandth of an ampere), is the unit of measure of the amount of electric current passing through an object in a second of time. It is a resultant of the pressure and resistance, the volts and ohms, and may be represented by the volume of urine passing the stricture. Thus the more powerful the bladder (more volts) and the less the stricture (fewer ohms) the greater the current (more amperes). This equation can be varied indefinitely. This illustration explains why the same number of cells will not give the same number of amperes or milliamperes when passed through different persons or different parts of the body; the resistance is different.

The following, then, would be the graphic formula for this subject:

Volts or voltage	Bladder.
Ohms	Stricture.
Amperes	Passing current.

Adenoid Vegetations.—Dr. Renner (*Buffalo Med. and Surg. Jour.*) concludes:

1. Always suspect adenoid vegetations in children under fifteen with nasal obstruction, and do not forget their frequency in cases under twenty.
2. Defective vocal resonance, middle ear disease, and hypertrophied tonsils in children and generally due to, or associated with, adenoid growths.
3. Failure to benefit middle ear disease by removing the faucial tonsils is often due to the presence of adenoids.
4. Much chronic ear trouble might be prevented by the early removal of these growths, and percentage of deaf mutes might be perceptibly diminished by early attention to the condition of the naso-pharynx.
5. While the late operation greatly improves the general health, or ear trouble, early operation would obviate many cases of both.
6. The condition of the naso-pharynx should be carefully watched after attacks of diphtheria, scarlet fever, etc.
7. Early recognition of naso-pharyngeal obstruction rests with the family physician, not with the specialist, who only meets these cases after the manifestations are marked and more or less serious.
8. Physicians should not encourage the idea, although perfectly true, that the patient will outgrow this trouble, for that only occurs in many cases after much serious harm has been produced by it.

The Diagnosis of Incipient Phthisis.—J. A. Terry, M. D., *N. A. Jour. of Hom.*, May, 1890. Whenever there are present a local focus or foci of miliary deposits in the lung, undergoing tuberculous or caseous degeneration, there will be found corresponding hypothermic spots or areas of abnormal heat on the chest wall, varying in size from an inch to several inches, even when hardly any rise in the general temperature can be found in the axilla.

The average normal temperature of an adult is in the axilla 98.2° F., and the normal corresponding temperature of the chest wall under the clavicles and in the second intercostal spaces will be found to be two or three inches from the sternum, 96.4° to 96.8°, under ordinary circumstances of repose; exception to be taken after fatigue, meals, warm baths or excitement of any kind. The figures 96.8° are more convenient for general average and practical purposes.

Any rise of temperature exceeding 3 or 4 tenths of a degree on the average normal heat in the anatomical regions named above (the subclavicular and second intercost. spaces), is a suspicious if not a positive sign that some kind of inflammation is taking place in the apex of the lung or in the pleural tissue.

The diagnosis may be accurately reached by applying the thermometer lengthwise, parallel with the ribs, in the middle of the costal space, the bulb held fast with a thick pledget of raw cotton, wadding, or some other soft material which enables one to press firmly and burrow, so to speak, the bulb of the instrument into the flesh without breaking it. To proceed systematically both sides of the chest must be tested in this manner to find the correct temperature and compare the difference between the two. The axillary temperature must also be taken to detect or not any abnormal degree of heat in that region.

The best time for such examinations is in the morning hours, and again in the evening. It will be well to remember that during digestion the temperature may vary a few tenths: if the patient is warmly clad you must wait until this artificial heat becomes natural by exposing the chest awhile. The instrument must be kept *in situ* eight or ten minutes.

A slight or decided pain may be sometimes produced when pressing the bulb of the clinical thermometer against the chest, and this sign is also another valuable diagnostic point, because pain in the supra-scapular or infra-clavicular

apaces is one of the earlier pathognomonic symptoms of tuberculous inflammation of those pulmonary regions.

By this method I have found easier the diagnosis of incipient phthisis or the presence of small tubercular deposits, especially when vocal resonance, respiratory murmurs, etc., were so obscure or deviated so slightly from the normal that a positive conclusion could not be arrived at.

Aristol in Affections of the Skin.—P. J. Eichhoff, M. D., Physician to the Dermatological and Syphilological Departments of the Municipal Hospital, in Elberfeld, Germany (*N. E. Med. Monthly*, July, 1890). Aristol is a chemically formed compound of iodine with thymol. It is insoluble in alcohol, glycerine and water; easily soluble in ether and in the fatty oils; to guard against decomposition it should not be exposed to light, and on the same account solutions should be prepared in the cold. It has a peculiar action of its own which may be explained as depending on the chemical and pharmacodynamic action of its individual components and their mutual action in the compound. Thymol has not won a very high place either in the armamentarium of the dermatologist, or as a disinfectant in the surgical treatment of wounds; and iodine, on account of various disadvantages connected with its use, either pure or in many of its combinations, is often contraindicated. Aristol seems to unite all the advantages of both drugs and none of their drawbacks.

Ten cases, both from hospital and private practice, are described in detail, in which Aristol was employed by the writer according to the following prescription:

- B Aristol..... 3 i.
Vaseline..... 3 ix.
M. Flut ung.

The conclusions to be drawn from a consideration of these cases are stated as follows:

1. Aristol is in all cases a harmless drug; it has no poisonous properties, and with its harmlessness has other advantages, *e. g.*, it is odorless.
2. In only one case (soft chancre) have we found its action to be inferior to that of iodoform.
3. In cases of psoriasis its action was somewhat slower than that of the best older remedies, chrysarobin and pyrogallie acid, but it has the distinct advantage that it is not toxic, or followed by any unpleasant or deleterious action, and is consequently to be preferred to them.
4. In another group of skin affections, the mycoses (ringworm), aristol has as good an action as any other drug, its action is in some cases more rapid, and it is certainly less irritant than many other remedies.
5. In ulcerus cruris and in tertiary syphilitic ulcerations a better result is obtained than with any other known drug.
6. In lupus it surpasses all other remedies, even the best, both in its harmlessness and the thoroughness and rapidity of its action.

Judging from our results with aristol as to its probable use in other departments of medicine, we must predict for it a great future.

I mention only the probability of its useful employment in bone and joint diseases, and in many diseases of women. It is also not improbable that aristol will be found of use in general and local tuberculosis and constitutional syphilis, possibly best administered hypodermically. I can but recommend my colleagues to make further experiments with the drug in the direction I have indicated.

The Tripod of Life.—Dr. J. B. Chisholm (*Southern Practitioner*, July, 1888), says that the perpetuation of animal life depends upon the triple forces residing in the heart, brain and lungs. Death occurs directly or indirectly as a sequence of the disturbance of this equipoise of vital forces. It often happens that we are in doubt as to the exact manner of dying, whether it be due chiefly to coma,

asphyxia or syncope. As a matter of fact the solution of the question of death is of less importance than the preservation of this equipoise of forces during life. The civilization which furnishes this condition is the one best adapted to prolongation of life. The undue stimulation of brain and nervous force by our present method is the horn of the dilemma which merits consideration. Within certain limits, brain and nervous action are strictly physiological, and invigoration of nervous tissue is the result. With our present mode of living, how long it may require to convert us into a nation of madmen, God only knows. To-day all our brain force is used in thinking and feeling until the sympathetic system calls in vain for more power to carry on organic life. With the present order, a system of gymnastics rigidly enforced, accompanied by mental relaxation, seems to offer our most reasonable hope. Something may be done by practical therapeutics, including nervines, tonics and electricity.

The Localization of Taste Sensations.—In the *Centralbl. F. Med. Wissenschaft* is an abstract of extremely interesting observations by Oehrwail, who, by the aid of a lens, stimulated the individual papillae by means of a fine brush dipped in a solution of sugar, quinine, acetic acid and salt. He found that, as had before been observed, the circumvallate papillae were particularly sensitive, but that on the sides and tip the fungiform papillae only were sensitive. He estimated that in the whole tongue there were 350 to 400 of these papillae, of which he found only 125 to respond to stimuli. Many of them appeared to be excited by all four of the substances employed, but in other cases papillae were found to respond to one form of stimulus but not to another. Thus, 19 per cent. responded to acetic acid but not to sugar; 24 per cent., which were sensitive to acid, were unaffected by quinine; while 15 per cent., which recognized sugar, did not respond at all to the application of quinine. All of the papillae were sensitive to touch, pain, heat and cold. When stimulated by a mild Faradic current, an acid taste only was excited. He confirmed the observation of other authors, that most of the anterior two-thirds of the dorsum of the tongue was devoid of gustatory papillae.

Treatment of Ingrowing Toe-Nail With Tin-Foil.—Dr. Theodore Clemens (*Allg. Med. Cent.-Zeitung*) recommends the following treatment: After thoroughly cleansing the diseased parts with soap and water and then drying, the edges of the nail are covered with one or two layers of tin-foil. The strips of tin-foil are held in position by a thin layer of yellow wax, care being taken to place the strips on all places where the nail is in contact with the flesh. This packing need only be renewed two or three times during the first few weeks, the procedure being simple, painless, and easily carried out by the patient.

The author thinks that the tin-foil acts not only mechanically but also chemically, since it contains iron, copper, arsenic, molybdenum and bismuth.

The Abuse of Soap and Water.—It is a fact that the best of things may be overdone, and Dr. B. Merrill Ricketts, of Cincinnati, has come to the conclusion (*Jour. of Cut. & G.-U. Dis.*) that to the abuse of soap and water is to be attributed a certain skin affection found almost exclusively among society women, or those persons who are fastidious in the care of their skin, especially that upon the face. In this disease the skin is reddened, with more or less scaliness and considerable burning, especially when exposed to either hot or cold currents of air. At times it is quite painful, often causing loss of sleep. As may be imagined, it is most common with those who have sensitive, delicate skins. The women who suffer the most are those who wash their faces frequently, at the same time using soap and water with a rough, coarse towel well applied, thereby

producing an excess in the exfoliation of the cuticle. This result is hastened by the use of the various cosmetics several times each day. Dr. Ricketts quotes the statement made to him by one who is considered a society belle, that she applies Lubin's powder twelve times in thirteen hours, each time applying it after the face has been thoroughly washed with Pears' soap. He very pertinently asks, "How long would the leather in our shoes withstand such treatment?" Washing the face and hands with pure water aided with a wash-rag or soft sponge and drying thoroughly with a very soft towel is, perhaps, the best way to keep a good skin.

Suit for Damages for Injury to Fetus.—The *British Medical Journal*, June 28, 1890, tells of a curious and novel suit that has been brought before one of the Irish courts, and which was occasioned by the disastrous railway accident at Armagh a few years ago. A woman who was in the train at the time of the accident, and in an early stage of pregnancy, subsequently gave birth to a crippled child, and the child now sues the railway company, through its father, for the damage it has sustained in being crippled in consequence of the railway accident. Every one is familiar with instances in which malformations have been ascribed, with more or less probable accuracy, to some injury or shock the mother received during her pregnancy, but the *British Medical Journal* has been unable to find any instance in which such malformation has hitherto been the ground of action at law.

Secondary Amputation in Railroad Surgery.—In a paper on "Some Practical Points in Railroad Surgery" (*St. Louis Courier of Medicine*, July, 1888,) Dr. Willis P. King lays down the following rules for amputation:

To operate under conditions that will give reasonable assurance of union by the first intention is,

First, to go as far away as possible from the point of injury.

Second, to always amputate under the strictest antiseptic precautions.

Third, to do secondary amputations whenever it is possible to do so. Every surgeon who has had to deal with railroad injuries knows that when a car wheel passes over a limb, in addition to the serious injury inflicted at the point over which the wheel has passed, there is an extension of the injury far beyond that point. We will say that the wheel has passed over the ankle joint. It will be found that the connective tissue has been torn for some distance up the limb; there will be ruptured blood vessels with effusion of blood, so that the limb will be "black and blue" for some distance beyond the actual site of injury, and there must be in the very nature of things serious injury inflicted on the local nerves supplying the part. When we cut into these tissues for the purpose of making an amputation, we find the integument loosened, the connective tissue torn and blood clots in many places. Now, to make an amputation through tissues so injured is not to do so with the confident assurance of securing union by the first intention. In going higher up we must often sacrifice so much of the limb as to seriously impair its future usefulness. The question naturally arises here, would it not be better to wait, to roughly lop off the part beyond the injury, secure bleeding vessels, antisepticize the wound, dress antiseptically and wait for Nature to prepare the parts for amputation? Then wait until the normal condition of the local nerve supply has been re-established, until the effused blood has been absorbed and the ecchymosis disappears, and then select the best site and make the amputation under conditions that will reasonably ensure union by the first intention.

I know that I will be met with opposition here. It will be said that we have no right to put the life of an injured person in jeopardy twice when all that is to be done may

be done at one operation. I am not so sure that we jeopardize the life of the patient by the line of action proposed.

It is a question of the first importance to a cripple to know if he must limp, whether he shall limp with pain or without it.

I will not say that by the use of antiseptics we have not had good results under ordinary circumstances in primary operations, for we have had, but in secondary operations the results have been uniformly good, the very best that could be expected under any circumstances.

The Ehrlich Test for Typhoid Fever.—Recently two observers have reported favorably on the method by Ehrlich's test, a test, remarks the *N. Y. Med. Journal*, that can not well be called new, having been published in 1882, but that does not seem to have attracted much attention. Two solutions are prepared: one containing seventy-two minims of hydrochloric acid and ten grains of sulphanilic acid in three ounces of distilled water; and the other a freshly prepared half-per cent. solution of sodic nitrite in distilled water. Twenty-five parts of the first solution and one part of the second are mixed with twenty-six parts of the patient's urine, and the mixture is rendered alkaline by the addition of strong ammonia-water. In urine from a typhoid fever patient a bright orange-red color appears.

The special value of the test seems to be in the early stage of the disease, when the difficulty of diagnosis is greatest. The reaction seems to be due to the ptomaine formed in typhoid fever, and the formation of a similar alkaloid in some other diseases is probably the reason for the occasional result obtained. It might be worth while to make more frequent use of a test that is so easily applied, and that seems always to call forth the characteristic reaction with urine from a typhoid fever patient.

Aborting Abscesses.—Apply a yeast poultice to the affected parts, upon which equal parts of borate of soda, boric acid, salicylic acid and powdered tannin should be dusted.

A moderate dose of calomel should be given internally. This treatment is usually sufficient to abort an abscess if it is resorted to when the local symptoms first make their appearance.

Frictions with the following ointment will also be found valuable. *Med. and Surgical Reporter*:

℞. Salicylate of bismuth..... $\frac{3}{4}$ drachms.
Lanoline..... $\frac{7}{8}$ drachms.

Flies as Carriers of Contagion.—Dr. Alesses' discovery that the bacillus of Koch may exist in the intestines of a fly that has fed on phthisical sputa, has drawn considerable attention to various instances of the propagation of contagion in this manner; among these the granular ophthalmia of Egypt. It has been said that the lamented Father Damien attributed his leprosy to the inoculation, through the agency of flies, of an abrasion on the scalp. Keep flies away by cleanliness of premises.

Interpines.—Dr. Frederick W. Seward has recently established a very charming home for invalids at Goshen, New York. The position is one of the most beautiful in the State, and the invalid will not only have an excellent home, but most careful and scientific medical advice.

Aristol in Epithelioma.—The article on this subject in our October issue, page 219, should have been credited to the *Medical and Surgical Reporter* of Philadelphia where it first appeared. We were led to make the error by the journal from which we quoted. The *Reporter* will please accept our apology.

MISCELLANY.

—Two Chicago physicians, the Mayor and a lawyer, are reported to have started a Medical Trust. They agree with the member to furnish him medical advice and medicine at one dollar per month, in advance. They paid canvassers two dollars per head for securing members. The County Society is investigating the matter.

—Animal vaccination in India has been greatly furthered by Dr. O'Hara, who has found the donkey an efficient substitute for the calf as a source of vaccine lymph. Donkeys are very cheap, plentiful, and can be used during the hot season.

In the Punjab, buffalo calves are being employed for the same purpose, with good results.

—In a case of pneumonia complicating measles, with great irritability of the stomach, the mixture of egg-white, lime water and milk, recommended by Prof. Keen (*Times and Register*), was for several days the only food the child could retain on her stomach.

—A bacteriological Institute of Protective Medicine is to be established at the University of Cambridge. One of the principal lines of work will be anti-rabid inoculations.

—Brain sugar produced by the action of a 2 per cent. sulphuric acid solution upon cerebrin is said to be identical with galactose produced from sugar of milk.

—Sulphur, always heretofore considered an elemental substance, is now declared to be a compound of carbon, with other elements. Dr. Theodore Gross, of Berlin, read a paper before the Vienna Academy of Sciences, detailing experiments which seemed to prove that sulphur, especially precipitated sulphur and that in what is known as the allotropic form, is readily decomposed and leaves a residue of carbon.

—Beta-naphthol is said to produce cataract.

—Furber (*Brit. Med. Jour.*) treated a case of intussusception successfully by the injection of air through a long rubber tube, and manipulating the abdomen until the gut was felt to slip back into its place.

—The *Daily Press* contains the startling report that the Chinese lepers in British Columbia have communicated their terrible malady to the Indians, who in that province number fifty thousand. Senator Molnes, M. D., from British Columbia is said to have stated that out of the total Indian population of the province, he believes there will not be five thousand living in a century, as a result of the leprosy.

—The Emperor of Austria has granted permission to practice medicine to Madame Rose Kerschbaumer—said to be the first license to a woman to practice medicine in Austria. There is no question respecting either her professional knowledge or professional skill.

—The *Medical Era* says that there are in the world only 18,000 homoeopathic physicians, while there are more than 200,000 old-school physicians. Yet the former desire equal position and influence in managing affairs pertaining to the profession!

—The *London Lancet* says: "The day is probably not far distant when persecution, ostracism or censure for difference of opinion in belief, will be regarded as not only immoral but absurd."

—The *Clinique* reports a case of ptialism in pregnancy with continued nausea entirely relieved by three hypodermic injections of a five per cent. solution of cocaine within three days.

—Ammonium chloride, thirty grains in a glass of water, is said to overcome the narcotic effects of alcohol.

—Dr. V. Paulet has obtained excellent results from simulo in hysteria, also in acute ovaritis and insomnia.

—Tressilan, in the *British Med. Journal*, recommends carbolated oil (1-15) as superior in the treatment of scabies to any preparation of sulphur.

—The negroes in Louisiana use pineapple juice in diphtheria with excellent results.

—Dr. Laville's celebrated gout mixture is composed of Spanish wine colored with cochineal and containing colchicine and quinine. The pills contain silicate and carbonate of sodium, ex. alkenyl and a vegetable powder.

—If a little botanical fact is remembered it will save many a swollen hand and face in wandering through the woods and along the highways! The three leaved ivy is dangerous; the five leaved is harmless. The poison sumach have white berries; no red berried sumach is poisonous.

—The Southern Surgical and Gynecological Association will meet in Atlanta, Georgia, November 11, 12 and 13. The wide range of subjects which will be treated in the papers, presented by some of the leading minds of the South, will make the meeting one of especial interest.

—The two hundred papers either read by title or in full, at the Berlin Congress, are to be published with the proceedings and discussions in a large work, which will appear in separate parts.

—Methylene blue is said to act as a very efficient anodyne in various painful local diseases, such as neuritis and rheumatic affections.

—A very rapid healing of chancroids is produced by a combination of creoline and iodoform.

—Under the new tariff foreign medical books, in any other language but English, pay no duty.

—The murder of Dr. George W. Lloyd, in the Flatbush Asylum, by a former insane patient, has created much excitement, which will probably lead to a vigorous investigation. From the facts thus far presented, it would seem that a valuable life was sacrificed to the neglect of the asylum authorities.

—The Paris Academy of Medicine has opened to competition a prize of the value of one thousand francs for the best work on the Hygiene of Infants. The following is the question proposed: To determine what are, in the artificial feeding of infants, the value and the effects of raw milk, warmed, or boiled milk, respectively. The papers, which should be written in French, the other academical rules being observed, are to be forwarded to the Academy before March 1st, 1891.

—On a recent occasion George Bancroft, the historian, told a bevy of young girls that the secret of long life lay in never losing one's temper. If you will never get angry, he said, you will live to be ninety.

—The Norwegians are the longest-lived people in the world, there being a very slight mortality among children in that microbe-free land.

—An exposition of all the mechanical means in use in every department of labor for the protection of workmen will shortly be organized at Brussels or at the Hague. Samples of everything that can in any way improve the sanitary condition of workmen will also be exhibited, and it is hoped to complete a machine to be substituted for the human breath in glass blowing.

—An artificial vichy water, as good as the original and probably better, may be prepared by dissolving half an ounce of sodium bicarbonate in a bottle of plain soda water.

—Segwald A. Quale, of Eau Claire, has left a million dollars for a hospital for cripples and deformed, in Madison, Wis.